Academic Self-Efficacy of High Achieving Students in Mexico

Ana Karen Camelo-Lavadores[1], Pedro Sánchez-Escobedo[1,*] & Jesus Pinto-Sosa[1]

[1]Facultad de Educación, Universidad Autónoma de Yucatán, Mexico

*Correspondence: Facultad de Educacion, Universidad Autónoma de Yucatán Mexico. 39A n. 376 x28 y 30 Merida Yuc 97114, Mexico. Tel: 521-9999-947-8681. E-mail: psanchez@correo.uady.mx

Abstract

The purpose of this study was to explore for differences in the academic self-efficacy of Mexican high school students. A gird questionnaire was administered to 1,460 students form private and public schools. As expected, high achieving students showed significantly higher academic self-efficacy that their peers. However, interesting gender differences were found. Whereas men had higher self-efficacy feelings towards Math, Sciences and English as a second language; women showed higher self-efficacy in Spanish language. Likewise, private school's students showed feelings of academic self-efficacy. Implications of findings for education practice and research are discussed.

Keywords: *high achieving students; self-efficacy; academic self-efficacy*

1. Introduction

1.1 Studying High Achieving Students

Farkas, Duffett y Loveless (2008) assert that meanwhile schools make efforts to improve the academic performance of the students with learning difficulties, their resources rarely converge in the necessities of the students showing high achievement. They argue that, in general, training programs do not prepare future teachers to work with high achievers and gifted students. Shayshon, Gal, Tesler y Ko (2014) demonstrated that teachers, when addressing high achieving students, do minor modifications to their teaching techniques and they carry out little adaptations to the curriculum in response to their needs and demands in the classroom.

Likewise, research on high achieving students in Mexico and in Latin America, in general, is scarce; since teacher assume that these students require little academic support and present fewer problems than regular students.   The purpose of this study is to explore difference between academic self-efficacy feelings of high achieving and regular high school students in Mexico.

Regarding high achieving students, educational research results have yielded ambiguous results.   Whereas some authors underline the respect and high regard of peers, others stress the social rejection and stigmatization of high achieving students.

For example, whilst Händel, Vialle, & Ziegler (2013) discovered negative reactions of peers of high achieving students and social disapproval in the group, Manaster, Chan, Watt & Wiehe (1994) found that talented students had positive social perception and they were respected by the group. However, they also reported that high achievement students were negatively labeled as nerds and so on.

In this regard, Rentzsch, Shütz, and Schröder-Abé (2011) described high achievers as intelligent students with high academic ambition driving to reach academic success and reported that their apparent "lack of modesty and high effort" were associated with dislike by their peers (p.160).

In fact, students with high levels of academic achievement are often subject to intense and continuous pressures to restrain their academic performance, and may lose motivation because of the social taxes associated to their academic success (Gross, 1989).

Stake y Nickens (2005) concluded that peers may negatively influence the student's self-image as future potential scientists.

Beyond peers, teacher perceptions are also important. Hughes, Dyer, Luo y Kwok (2009) suggested that teacher's

praxis contributed to the positive academic reputation of high achieving students and that their opinions of good students influence other students' perception of competency. In fact, teachers play a vital role in helping high achieving students to adapt and succeed, not only in the academic life in but the personal one (Kesner, 2005). A positive teacher's perception has been positively correlated to the performance motivation in high school students (Wentzel, 1997).

Indeed, parents may also play a role in constructing feelings of academic self-efficacy in high achieving students since motivation to maintain such a high performance comes from their peers, teachers, parents, and other close to them (Wentzel, 1998). Finally, as Tourón, Fernández and Rayero (2002) assert parents and teachers alike are important to the high achieving child, because they opinion reflects into their daily behavior inside the classroom and their home.

1.2 Academic Self-Efficacy

Self-efficacy is a personal belief in one's capability to organize and execute a course of action required to attain mastery and succeed in specific tasks and it has been a key component in theories of motivation and learning in varied contexts.

This concept emerged from the seminal work of Bandura who posited that self -efficacy affects an individual's choice of activities, effort, and persistence. People who have low self-efficacy for accomplishing a specific task may avoid it, while those who believe they are capable are more likely to participate.

Artino (2012) claims that self- efficacy emerges from four primary sources: (a) enactive mastery experiences (actual performances); (b) observation of others (vicarious experiences); (c) forms of persuasion, both verbal and otherwise; and (d) physiological and affective states from which people partly judge their capableness, strength, and vulnerability to dysfunction.

In this work, we focus in academic self-efficacy as the portion of the self-concept construct related specifically to learning. Academic self-efficacy corresponds with pupils' explanations of their accomplishments and it is viewed as instrumental to academic achievement (Dickhäuser & Steinmeier-Pelster, 2002).

Theoretically, high achieving students would be expected to have higher feelings of self-efficacy, but empirical evidence of this has been difficult to find, in spite that in the las 4 decades several educational researchers had used this concept to predict and explain a wide range educational phenomena from athletic skill to academic achievement.

Hardy (2014) claims that the study of self-efficacy may help teachers understand its underlying structure and the process through which academic self-concepts can be raised or lowered.

Marsh (1990) provided a theoretical perspective to explain how students develop self-efficacy feelings by using two different frames of reference to evaluate their abilities and achievements in different domains (mathematical subjects vs. verbal subjects). March argued that students differ on their feelings of academic self-efficacy by subject, and they are mainly based on the feedback they receive about their achievements (Marsh & Shavelson, 1985).

Marsh (1990) also posted that Math and Verbal self-concepts are unrelated and independently developed with relation external and internal comparisons.   Students compare their own math and verbal abilities with the perceived abilities of other students in their frame of reference.

Given the fact that self-efficacy is domain specific, in this research we address feelings of efficacy in four general educational domains: Spanish Language, English as a foreign language, Mathematics and Sciences.

1.3 Grid Measures

To establish degree of self-efficacy, we used an adaptation of Rost's (1993) grid measure since it has proven time effective and flexible. A grid allows to measure a given dimension or trait across various dimensions. There is also ample evidence of their reliability, validly and practical value in assessing a variety of psychological traits in school settings (Rost, Spartfeldt, Dickhauser, & Schilling, 2005).

Instruments developed under the Grid measure logic, set several items evaluating a given construct. These items are organized in rows (stem) that are rated across diverse domains or subjects (columns), so the gird structure provides an economic measure to assess several dimensions with relation to the stem concept.

Rost kindly allowed us to review, translate and adapt his Differentiated School Self-Concept (DISC) Grid to develop the resultant Mexican Differentiate school academic self-efficacy Grid.

2. Method

2.1 Participants

Participants were men and women from 14 to 19 years old, all high school students in the state of Yucatan Mexico. A total of 1,460 students voluntarily responded in complete fashion. They were from both public and private schools. Table 1 depicts the sample.

Table 1. Sample

		1	2	3	Total	Percent
Public	Men	238	149	149	536	45
	Women	285	201	175	661	55
Subtotal		523	350	324	1197	100
Private	Men	75	51	63	189	72
	Women	26	30	18	74	28
Subtotal		101	81	81	263	100
	Total	624	431	405	1460	100

The proportion of private public schools is consistent with the general Mexican high school population, and both sexes are represented within expected age ranges for this educational level. From this group 64 (4%) students were identified as high achievers because they fulfilled two inclusion criteria: GPA scores over the 95 percentiles and being identified as a high achieving students by at least one teacher.

2.2 Instrument

The original version of the Differentiated School Self-Concept (DISC), was provided for analysis and translation. The purpose of this Grid is to assess scholastic self-perception of students, by asking some self-appraisal questions in relation to various academic subjects.

The DISK-Grid is an instrument with eight items. Each item forms one row; each discipline/subject (Math, Physics, German, and English) forms one column. The students are told to think about each subject independently and mark in a 7 point Likert scales their perception.

Translation to Spanish langue was derived from both English and German items. Back translations from both languages was also use. Final list of items was used to conform a similar scale as the original, changing the subject German for Spanish.

The translated and adapted version was administered to a sample of 106 high school students, from a school not included in the final study.

In general participant in this pilot study claimed that this measured self-perception regarding competencies in each of the subjects, and that their judgments tended to be different and independent per subject. However, a general complaint was the complexity of the instrument and the time I took to respond to that.

Feedback form this pilot stage, lead us to simplify the instrument for Mexican students by shortening the Likert scale from 7 to 5 points, reducing the number of steam items from eight to six.

2.3 Data Analysis

Responses were coded and a data bae created to be analyzed with various statistical software programs. The following section present results.

3. Results

Table 2 compares the self-efficacy feelings between the regular students (RS) and the high achieving students (HAS) per sex in a scale from 6 to 30.

SCIEDU®
Sciedu Press

Journal of Curriculum and Teaching

HOME   ABOUT   LOGIN   REGISTER   SEARCH

CURRENT   ARCHIVES   ANNOUNCEMENTS

RECRUITMENT   EDITORIAL BOARD   PUBLICATION

POLICIES   ETHICAL GUIDELINES   INDEX/LIST/ARCHIVE

Home > About the Journal > Editorial Policies

Editorial Policies

- Focus and Scope
- Section Policies
- Peer Review Process
- Publication Frequency
- Open Access Policy
- Archiving
- Indexes

Focus and Scope

Encourage and publish research in the fields of curriculum and instruction,learning and teaching, and related disciplines at global and local levels.

Section Policies

Articles

☑ Open Submissions   ☑ Indexed   ☑ Peer Reviewed

Peer Review Process

The journal uses double-blind system for peer-review; both reviewers and authors' identities remain anonymous. The paper will be peer-reviewed by three experts; two reviewers from outside and one editor from the journal typically involve in reviewing a submission.

Publication Frequency

2016 Semiannual, published in May and November

2015 Semiannual, published in May and November

2014 Semiannual, published in May and November

2013 Semiannual, published in May and November

2012 Semiannual, published in May and November

USER

Username pocholon
Password ••••••
☐ Remember me
Login

NOTIFICATIONS

View
Subscribe

JOURNAL CONTENT

Search

Search Scope
All ▼
Search

Browse
By Issue
By Author
By Title
Other Journals

FONT SIZE

INFORMATION

For Readers
For Authors
For Librarians

Open Access Policy

This journal provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

Archiving

This journal utilizes the LOCKSS system to create a distributed archiving system among participating libraries and permits those libraries to create permanent archives of the journal for purposes of preservation and restoration. More...

Indexes

ERIC(Educational Resources Information Center)

AMICUS

EBSCOhost

Google Scholar

JournalTOCs

Library and Archives Canada

Lockss

PKP Open Archives Harvester

ProQuest

Scilit

SHERPA/RoMEO

The Excellence in Research for Australia(ERA)

The Standard Periodical Directory

Journal of Curriculum and Teaching

ISSN 1927-2677 (Print) ISSN 1927-2685 (Online)

Copyright © Sciedu Press

To make sure that you can receive messages from us, please add the 'Sciedu.ca' domain to your e-mail 'safe list'. If you do not receive e-mail in your 'inbox', check your 'bulk mail' or 'junk mail' folders.

SCIEDU®
Sciedu Press

Journal of Curriculum and Teaching

Home > About the Journal > **Editorial Team**

Editorial Team

Associate Editors

Carmen Fies, The University of Texas at San Antonio, United States
Susan Loraine Renes, University of Alaska Fairbanks, United States

Editorial Assistant

Ella Smith, Sciedu Press, Canada

Editorial Board Members

Abdelkader Hermas, Faculté Polydisciplinaire de Taroudant, Morocco, Morocco
Ajay K. Das, Murray State University, United States
Akbar Nikkhah, University of Zanjan, Iran, Islamic Republic of
Amel Thafer Alshehry, Najran University, Saudi Arabia
Andrea Gilkison, Auckland University of Technology, New Zealand
Dr Benaouda Bensaid, International Islamic University Malaysia, Malaysia
Bick har LAM, Hong Kong Institute of Education, Hong Kong
Bret G Range, University of Wyoming, United States
Carmel Geneva Roofe, University of Technology, Jamaica
Carmen Fies, The University of Texas at San Antonio, United States
Carmencita Layug Castolo, Open University Polytechnic University of the Philippines, Philippines
Carol Schubert, Kaplan University, United States
Catherine M Lido, University of West London University of North Carolina Wilmington
Chaya Gopalan, Southern Illinois University Edwardsville, United States
Chun-Yen Tsai, National Sun Yat-sen University, Taiwan, Province of China
Dr. Colleen Halupa, Letourneau University A.T. Still Health Sciences University National American University St. Joseph's College of Maine, United States
Cristiano Pesaresi, Sapienza University of Rome, Italy
Dan A Keast, The University of Texas of the Permian Basin, United States
Debby Zambo, ASU, United States
Douglas Lynch, University of Alaska Fairbanks, United States
Ebru Tuncer Boon, Istanbul Yeni Yüzyil University, Turkey
Eleanor Anne Petrone, Western Carolina University, United States
Dr Emily Luib Beltran, Technological University of Philippines - Cavite, Philippines
Estrella Agüera, University of Córdoba, Spain
Hamdy Mohamed Elbitar, Assuit University, Egypt
Jamal Hasan Abu al-Ruz, Hashemite University, Jordan
Joe W. Burden, Jr., University of Central Florida, United States
Dr. Khawla Qadoumi Khawla Izzat Qadoumi, Irbid National University, Jordan
Dr. Kleanthis K. Katsaros, Greek Ministry of Finance/ Athens University of Economics and Business, Greece
Laura Pontiggia, University of the Sciences, United States

Copyright © Sciedu Press

To make sure that you can receive messages from us, please add the 'Sciedu.ca' domain to your e-mail 'safe list'. If you do not receive e-mail in your 'inbox', check your 'bulk mail' or 'junk mail' folders.