Revalidating an Instrument to Gain Insights into Changing Attitudes Towards Teaching All Students

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Revalidating an instrument to gain insights into changing attitudes towards teaching all students.

Jess L. Gregory¹ and Lori A. Noto²

Paper presented at the 2019 NERA Annual conference, recommended citation:


Abstract

The educational landscape has changed and with it the expectations for general education teachers. Teachers must meet students’ increasingly diverse and complex educational needs. The paper explores the role of ego as one of many possible reasons the ATTAS-mm instrument measures attitudes differently now from its original validation study in 2012.

Purpose

Shifting expectations in professional responsibilities and new approaches to educator evaluation have changed the educational landscape since the ATTAS-mm instrument was developed. General education teachers face the responsibility for meeting the needs of all the students in their care and with increasing demands of accountability and personalized instruction this task becomes increasingly daunting. Communities expect educators to engage all students “emotionally, cognitively and behaviorally” (Lewis, Asberry, Dejarnett, & King, 2016, p. 58). Both students and teachers work under increasing levels of stress (Rogers et al., 2017). Gonzalez et al. (2017) specifically cited that the increased rigor of testing requirements for students with

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special education needs adds stress to the already stressful job of teaching. Student results on standardized measures have been adopted by several states as a means to evaluate teacher performance since 2012 (Ryan et al., 2017). Kraft et al. (2016) suggest that the accountability measures implemented to evaluate the quality of educators fail to recognize the confounding variables in school leadership and organizational variables. The purpose of this paper is to reassess an instrument previously validated in 2012 focusing on teacher attitudes towards teaching all students.

Background

The education of students with disabilities in general education classrooms has become the norm for educating students (Lipsky & Gardner 1989; Sailor et al. 1986; Skirtic 1991; Stainback & Stainback 1990; Thousand & Villa 1990; Halvorsen & Neary, 2009). Inclusive opportunities have increased over the past decade due to No Child Left Behind (2001), IDEA amendments (2004) and the curricular expectations associated with Common Core State Standards (2009). The original special education legislation The Education for All Handicapped Children Act (PL 94-142, 1975) provided an educational experience funded by the public-school district which offered options from the general education classroom to a segregated setting outside of the school district depending on the programs available in the district. The law provides an expectation that inclusive services will be offered to students with disabilities however it is not a guarantee that such services will be provided nor does it guarantee successful inclusion. Additionally, some of the standardization expected through NCLB (2001), the 2010 amendments to NCLB – Every Student Succeeds Act and the Common Core State Standards (2009) create challenges for the inclusion of students with disabilities since successful inclusion is directly influenced by effective differentiated instruction, flexibility and individualization of services as defined by the student’s Individualized Education Program.

Inclusive education is typically defined as a student with a disability receiving his/her educational experience in a classroom with students who are not disabled. The general education teacher, in a collaborative team along with the special education teacher and other related services providers, is the student’s primary instructor. Students may need the support of a paraprofessional or instruction may be provided in a co-teaching model by the general education teacher and special education teacher instructing the entire class (Mastropieri & Scruggs 2010;
Turnbull, Turnbull, Wehmeyer, & Shogren, 2013; Villa & Thousand 2003). A student’s supports are determined by their collaborative team and are designated for the student. While it is necessary to train the general education teacher to provide effective teaching within the general education classroom there are not clear guidelines beyond some basic introductory material provided to the university teacher preparation programs.

Beyond the lack of clear training guidelines, not all general educators and administrators embrace providing services for students with disabilities in inclusive settings (Moores 2011; Volition & Sigmund 2007, Zigmond, Kloo & Volonino 2009), however, despite their reservations it has become the expected practice in order to ensure that students with disabilities are being exposed to the core curriculum to enable them to meet the benchmarks set forth in the standardized tests that they are expected to take with their classmates NCLB (2001) and ESSA (2010) and the tests associated with the Common Core State Standards (2009). General education teachers are the professionals with the knowledge of the core curriculum therefore they are the logical instructor with the appropriate supports, to help the student with disabilities develop the knowledge and skills expected from the core curriculum. Teacher preparation programs are often scrutinized on their ability to effectively prepare pre-service teachers to teach in increasingly diverse classrooms.

Several reports evaluating data before the implementation of IDEA (2004) provide a clear rationale as to the significant role played by the general educator. The Twenty-seventh Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (United States Department of Education, 2003) reported that 96% of students with disabilities were being educated in schools that educated general education students. Almost fifty percent (49.9%) of these students with disabilities were educated for most of their school day (79% of the day) in the general education classroom. Recently, the U.S. Department of Education, National Center for Educational Statistics (2019) reported that in 2015-2016 that 13.2% of the entire U.S. school population had a disability identified under IDEA with 94.8% being educated for at least a portion of the day in the general education classroom. 62.5% of students with disabilities are educated for 80% or more of their day in the general education classroom, 18.7% of students with disabilities are educated for 40-79% of their day in the general education classroom and 13.6% of students spend less than 40% of the day in a general education classroom (National Center for Educational Statistics, 2019). Given the numbers of students
consistently being educated in the general education classroom it is important that the educators responsible for their academic achievement have the knowledge, skills and dispositions necessary to successfully meet the educational needs of students with disabilities.

Inclusive education complemented by differentiated instructional practices (Gregory & Chapman, 2013, Tomlinson 1999; Tomlinson 2003), is an effective approach to provide increased opportunities for students with disabilities to learn in the general education classroom. Differentiated instruction provides students with instruction where they are not where the curriculum says they should be; provides learning opportunities that hold all students to high standards; uses flexible and creative teaching strategies and materials to reach all students; facilitates students to take ownership and advocacy over their own learning. These are expectations that are appropriate for all students and of great importance for students with disabilities in a general education classroom.

Critical preparation to address the needs of a growing diverse student population needs to occur at the university when pre-service teachers are building their knowledge and skills repertoire (Folin, 2010; Trumbull, Trumbull, Wehmeyer, & Shogren, 2013). Even though students with disabilities may be on the roster in a general education classroom it does not guarantee their academic and social inclusion in the classroom. Successful inclusion requires a commitment at district, school and classroom level as well at the teacher preparation level (Villa & Thousand 2003). General education teachers need opportunities to continue to build their knowledge and skills through professional development. Professional development topics should focus on differentiating instruction and supporting students with disabilities within their classrooms. Administrators need to provide planning and collaboration time so the general education teacher, special education teacher and other related services personnel can create a successful inclusive environment. In addition to academic instruction it is important that the general education teacher provide social and emotional supports and instruction to ensure that students with disabilities are truly included in the classroom.

The legal expectations stemming from IDEA (2004), NCLB (2001) and ESSA (2010) along with recent expectations from a 2017 Supreme Court ruling in Endrew F. v. Douglas County School District special education services must not only provide opportunities to learn the core curriculum along with an assurance that the students with disabilities have an Individualized Education Program that enables them to make progress and be adequately
challenged to meet their full potential. Inclusive services offered to students with disabilities is not a guarantee that such services will be provided nor is it a guarantee that the services provided are successful. The general educator is a pivotal element in the inclusion of students with disabilities. The attitudes of the general education teacher toward the inclusion of students with disabilities is a critical component. Attitudes are defined by Fishbein and Ajzen (1972) as having three components; cognitive, affective and behavioral. Analysis of these attitudes can guide the curriculum for pre-service education for general education teachers along with providing guidance for in-service education to general education teachers. Successful inclusion is based on general education teachers having accepting and willing attitudes toward the inclusion of students with disabilities into their classrooms (Mintz, 2007).

Educators must have great expectations for students with disabilities along with a positive attitude toward inclusion of students with disabilities (Silverman 2007). Additionally, educators need to be confident in their ability to teach students with disabilities, educators with high self-efficacy are more effective at differentiating instruction. The final component for successful inclusion is an effective team with general education and special education teacher as equals in the instruction, responsibility and decision making.

**Theory**

The original ATTAS-mm instrument was developed using the triadic model of attitudes embedded in the theory of planned behavior (Figure 1; Ajzen, 1991, p. 182). The instrument, based on this triadic framework was able to explain nearly 80% of the variance in scores using only nine items (Gregory & Noto, 2012). The ATTAS-mm instrument demonstrated strong internal validity with a high alpha value. The value of understanding educator attitudes towards inclusion through the triadic model has not shifted in the current evaluation, but the changes in the role expectations of educators may mean that other considerations confound the triadic approach.

The changes in educator evaluation and professional expectations drove the inclusion of additional theoretical considerations, specifically, the role of educator ego as well as the demands of legal concerns. Students with special education needs have additional legal protections and educators understand the financial, ethical, and public relations implications of failing to meet the accommodations required by law. In 2017 the supreme court ruled in Endrew
F. ex rel. Joseph F. v. Douglas County School District RE-1 (137 S. Ct. 988 (2017)), essentially creating a higher FAPE standard (Conroy & Yell, 2019). In the eighteen months since the Endrew verdict was handed down Conroy and Yell found fifty court cases with FAPE as a finding and in forty-nine of those, parents were seeking money. Schools and districts are frequently being threatened with lawsuits and of these threats, special education lawsuits are the most common (O’Connor, Yasik, & Horner, 2016). Educators may provide socially desirable responses to questions about inclusion as there are accepted norms for what educators ought to believe based on professional standards (CCSSO’s Interstate Teacher Assessment and Support Consortium (InTASC), 2011; CSDOE, 2013). Individuals may adjust their responses to coincide with the socially acceptable answers (Sheperis, 2019).

Socially and professionally acceptable views play a role in the triadic model of attitudes in the conative, or behavioral domain (Fishbein & Ajzen, 1972). Broadening beyond the triadic model of attitudes to the larger theory of planned behavior, the subjective norm consists of how individuals perceive those around them, and what they feel others will think of a specific action (Ajzen, 1991; Netemeyer, Ryn, & Ajzen, 1991). The actual feelings of others does not matter, only what the individual thinks the judgement of others will be. This subjectivity colors what someone intends to do and their attitude, and in the ATTAS-mm this is embedded in the third subscale of the instrument. Other items in the instrument may be subject to social desirability
bias, and a part of this revalidation is to study what may be affecting any changes in the psychometric properties of the instrument.

Social desirability bias also connects to educators’ view of their professional role and identity. For educators, professional and personal identity tend to become conflated. Ryan and Brown (2016) suggest that social comparisons undermine intrinsic motivation, promote a negative affect and effort becomes less consistent all in service of protecting personal feelings of worth. Ego is often synonymized with self-esteem and ego threat as “a real or implied challenge to a person’s self-esteem.” For the purposes of this research the operational definition of ego-threat conforms with the most common definition in the literature, that of a perceived (whether actual or not) challenge to an individual’s self-esteem or self-worth (Fast, Burris, & Bartel, 2014). This includes professional efficacy beliefs, as well as value statements connected with the evaluation of professional competencies.

Methods

Data were collected from 2012 to 2018 from 20 sites by 23 researchers. In return for permission to use the instrument free of charge, researchers were asked to report back the raw data from their research. These data were aggregated into SPSS and then the analyses were conducted to determine the full scale and subscale reliabilities, variance explained, and the factor analyses. Since the variables were assumed to be correlated, a direct obliminal rotation was used.

Results

Demographics of the sample.

For the six years of data collection, a total of 2046 responses were gathered. Not every researcher using the ATTAS-mm used all of the demographic questions, but the results of the data collected to describe the respondents are presented here and then the revalidation of the instrument follows. The sample was 21.4% male, 74.4% female and 4.2% chose not to identify. Nearly half of the respondents held a Bachelor’s degree (49.6%), almost a quarter had earned a Master’s (23.2%), smaller percentages held an Associates (6.5%), Master’s +30 credits (14.3), or a Doctorate (1.2%). A small number of respondents chose not to answer (5.2%). Nearly all of the respondents indicated that they were already in the field (98.8%). Most of the sample
indicated that they did not have aspirations to become an administrator (67.8%) with only 22% saying that they did think they would eventually choose to pursue administration. A larger number chose not to respond to this question (10.2%).

When describing the setting in which they worked the respondents were asked about the grade level of school, the community type in which the school is set and their perception of the socioeconomic setting of the school. About half of the educators who completed the instrument identified that they worked in an elementary school (50.1%). Aside from the small number who did not indicate a level of school (2%), 19.7% selected middle school and 28.2% indicated that they worked in a high school. Most of the educators indicated that they worked in an urban environment (42%). The remaining respondents were fairly evenly split between rural (23%) and suburban (26%) settings. Again, a small number chose not to respond to this question (7.8%). When selecting the best descriptor for the socioeconomic status of the community in which they work, roughly half of the sample chose “moderate (income/education in the middle 60%)” to describe the income level and education, with 33.7% selecting “poor (income/education in the lowest 20%)” and only 8.3 indicating “affluent (income/education in the highest 20%)”. A lower number of respondents chose not to answer this question (6.8%) than the question about the community type (7.8%).

The last segment of demographic questions relates to the level of experience of the educators completing the instrument. The sample was fairly evenly divided when it came to years of experience (Figure 2).
The respondents also chose the number of courses that they have previously taken in special education. The results show that 37.1% of these educators had no (0) courses in special education. Forty-three percent (43%) indicated that they had taken 1-3 courses and twenty percent selected the option 4 or more courses in special education. Another question asked respondents to describe the amount of experience educators have with students with special education needs. Twenty-eight percent said that they had minimal experience (1 hour or fewer per month) with students with special education needs, 23.8% selected some experience (2-10 hours per month), 29.8% indicated that they had considerable experience (11-80 hours per month) and 18.3% said that they have extensive experience (80+ hours per month).

**Revalidation results.**

This section of the results compares the current results with the 2012 results to answer the question of whether the instrument has maintained psychometric properties consistent with a
valid and reliable instrument even when the role of an educator has changed some with respect to educator evaluation settings, recent legal cases as they relate to educating student with different learning needs in the general education setting.

The instrument is still reliable (table 1) and explains 77.8% of the variance across the larger sample (table 2). The new sample was roughly forty times as large as the original sample (n=2046, 2019; n=48, 2012; Gregory & Noto, 2012). The current sample was slightly different from the original sample in terms of experience and role (table 3; Gregory & Noto, 2013). The factor analysis demonstrated some shifts in the ability of the instrument to measure attitudes of educators (table 4).

Table 1.
Reliability analysis of the ATTAS-mm

<table>
<thead>
<tr>
<th>Component</th>
<th>Title</th>
<th>2012* Cronbach Alpha</th>
<th>Current Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Scale</td>
<td>Attitudes towards teaching all students</td>
<td>0.833</td>
<td>0.810</td>
</tr>
<tr>
<td>Subscale 1: Cognitive</td>
<td>Believing all students can succeed in general education classrooms</td>
<td>0.720</td>
<td>0.743</td>
</tr>
<tr>
<td>Subscale 2: Affective</td>
<td>Developing personal and professional relationships</td>
<td>0.928</td>
<td>0.801</td>
</tr>
<tr>
<td>Subscale 3: Behavioral</td>
<td>Creating an accepting environment for all students to learn</td>
<td>0.837</td>
<td>0.814</td>
</tr>
</tbody>
</table>

*(Gregory & Noto, 2012)

Table 2.
Total variance explained by the ATTAS-mm 2012 and current

<table>
<thead>
<tr>
<th>Component</th>
<th>2012* Rotation Sums of Squared Loadings</th>
<th>Current Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>2.822</td>
<td>31.4</td>
</tr>
<tr>
<td>2</td>
<td>2.421</td>
<td>26.9</td>
</tr>
<tr>
<td>3</td>
<td>1.943</td>
<td>21.6</td>
</tr>
</tbody>
</table>

*(Gregory & Noto, 2012)
Table 3.

Sample characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>2012* Percent</th>
<th>Current Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>80.0</td>
<td>74.4</td>
</tr>
<tr>
<td>Pre-service Educator</td>
<td>92.5</td>
<td>27.5</td>
</tr>
<tr>
<td>In-service Educator</td>
<td>2.5</td>
<td>58.6</td>
</tr>
<tr>
<td>0-4 Years experience</td>
<td>92.5</td>
<td>12.3</td>
</tr>
<tr>
<td>5-9 Years experience</td>
<td>7.5</td>
<td>29.0</td>
</tr>
<tr>
<td>10-14 Years experience</td>
<td>0</td>
<td>19.7</td>
</tr>
<tr>
<td>15-19 Years experience</td>
<td>0</td>
<td>18.1</td>
</tr>
<tr>
<td>20+ Years experience</td>
<td>0</td>
<td>20.8</td>
</tr>
<tr>
<td>No experience working with individuals with disabilities</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>Minimal experience working with individuals with disabilities (&lt;1 hour/month)</td>
<td>12.5</td>
<td>28.0</td>
</tr>
<tr>
<td>Some experience working with individuals with disabilities (2-10 hours/month)</td>
<td>52.5</td>
<td>23.8</td>
</tr>
<tr>
<td>Considerable experience working with individuals with disabilities (11-80 hours/month)</td>
<td>20.0</td>
<td>29.8</td>
</tr>
<tr>
<td>Extensive experience working with individuals with disabilities (&gt;80 hours/month)</td>
<td>15.0</td>
<td>18.3</td>
</tr>
</tbody>
</table>

*(Gregory & Noto, 2012)*
Table 4.

Rotated* component structure matrix of the ATTAS-mm 2012 and current

<table>
<thead>
<tr>
<th>Item</th>
<th>2012** Component</th>
<th>Current Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Q1: Most or all separate classrooms that exclusively serve students with mild to moderate disabilities should be eliminated.</td>
<td>.076</td>
<td>.897</td>
</tr>
<tr>
<td>Q2: Students with mild to moderate disabilities should be taught in regular classes with non-disabled students because they will not require too much of the teacher’s time.</td>
<td>.341</td>
<td>.801</td>
</tr>
<tr>
<td>Q3: be more effectively educated in regular classrooms as opposed to special education classrooms.</td>
<td>.431</td>
<td>.747</td>
</tr>
<tr>
<td>Q4: I would like to be mentored by a teacher who models effective differentiated instruction.</td>
<td>-.074</td>
<td>.084</td>
</tr>
<tr>
<td>Q5: I want to emulate teachers who know how to design appropriate academic interventions.</td>
<td>.261</td>
<td>.474</td>
</tr>
<tr>
<td>Q6: I believe including students with mild/moderate disabilities in the regular education classrooms is effective because they can learn the social skills necessary for success.</td>
<td>.147</td>
<td>-.076</td>
</tr>
<tr>
<td>Q7: I would like people to think that I can create a welcoming classroom environment for students with mild to moderate disabilities.</td>
<td>.919</td>
<td>.265</td>
</tr>
<tr>
<td>Q8: Students with mild to moderate disabilities can be trusted with responsibilities in the classroom.</td>
<td>.952</td>
<td>.199</td>
</tr>
<tr>
<td>Q9: All students with mild to moderate disabilities should be educated in regular classrooms with non-handicapped peers to the fullest extent possible.</td>
<td>.818</td>
<td>.266</td>
</tr>
</tbody>
</table>

*Obliminal rotation with Kaiser Normalization

**(Gregory & Noto, 2012)**
Specifically, the current analyses showed that the instrument conflates the affective and behavioral domains of attitude. So, while the instrument remains reliable, the ability to discriminate between the affective and conative (behavioral) elements of attitude are reduced.

Conclusions

According to Sutton (2013) general education teachers have increasingly positive beliefs about educating students with disabilities in inclusive settings and that students can be successful academically. For general education teachers, this is a key expectation for inclusion. The scale became more reliable in measuring the cognitive component of attitudes towards inclusion. However, in the current sample, the instrument had a reduced ability to reliably measure the full-scale results and the affective and behavioral subscales.

In the current sample, the teachers’ cognitive responses regarding inclusion in general are more positive. Acceptance of inclusion is impacted by the types of students that are being included, this may be impacting their attitude toward professional relationships and creating an accepting environment in which all students can learn. School districts have increased efforts to keep students within the district and reduce out of district segregated placements as guided by IDEA (2004) and the previous versions of the special education law.

Additionally, the needs of the students being included have increased, more students with significant disabilities and behavioral challenges are spending more time in the general education setting (Cassady, 2011). General education teachers are concerned about a lack of training, planning time, resources, experience, knowledge, class size, collaboration, sharing responsibility with the special education teacher and a lack of administrative support (Fuchs, 2010). In order for all students to have a successful school experience it is critical that special education teacher and general education teachers have effective educational partnerships.

While the authors still receive many requests to use the ATTAS-mm by researchers, the authors will caution the researchers that the psychometric properties of the tool have changed and additional work may be required to measure the affective and behavioral domains of attitude. Further, this type of revalidation study is recommended for other researchers who have crafted tools to measure educator attitudes as the role of the educator is dynamic and the tools researchers use to assess educators must also remain dynamic.
Implications

The changing landscape of inclusive practices will require a refocusing of professional training at both the preservice and in-service level. It is critical that teacher preparation programs prepare teacher candidates to be effective educators of all students with disabilities not just those with mild disabilities. Teacher preparation for general education teachers will need to include significantly more time focused on meeting the needs of students who exhibit severe behavioral challenges, not only how to support them in the classroom but how to effectively work with a team of professionals that will be required to ensure that student’s academic and behavioral progress.

All teachers, general education and special education along with other school-based professionals, will need to learn effective collaboration skills. The only way that students with complex needs will be successful is with the support of a well-skilled and extensive team of professionals. Along with the building of professional teams, general education teachers will need ongoing professional development focused on meeting the needs of diverse learners, professional development in positive behavior supports and social emotional learning will be of primary importance.

Another area that is important for success is providing teachers with opportunities for rejuvenation and self-care. Opportunities for mindful practices such as meditation or yoga classes offered as part of the benefits package or within the context of the school day will prevent teacher burnout and the loss of potentially outstanding teachers after the first several years of their careers (Emerson, et al, 2017). These implications draw from the growing body of literature on the efficacy of mindfulness in education, as the changes in the demands on educators follows the pattern of greater and greater requirements and measures of accountability that may or may not have accompanying supports.

The final implication from this study speaks directly to those developing instruments. As the environment changes so too must the instrumentation used to measure it. The role of the educator changes with the evolving needs of students and communities, therefore there will always be a need to refine the tools researcher employ. Perhaps it will become the norm to set a revalidation schedule when instruments are developed. It is the authors recommendation that researcher include these schedules with the instrument and share the results publicly.
References


The Education for All Handicapped Children Act (1975). P.L. 94-142, Sec 612(5), B.


*Theory into Practice*, 46(4), 291-300.