

The influence of accepting change, spirituality, and tenacity and competence on authentic leadership among novice teachers in Malaysia

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ABSTRACT

Purpose: In schools, principals are leaders of teachers while teachers, are leaders of students and colleagues. The current development of the ever-changing education system makes the roles and responsibilities of teachers increasingly challenging. This requires a person to have an element of resilience to become a teacher who is responsible for guiding students and colleagues to achieve school goals. The aim of this study was to examine the influence of resilience (tenacity and competence, trusting in one's instinct and tolerance of negative affect, acceptance of change and secure relationships, control, and spirituality) on authentic leadership among novice teachers, particularly in North Malaysia.

Design/Methodology/Approach: This study used a quantitative approach through questionnaires such as The Connor-Davidson Resilience Scale and the Authentic Leadership Questionnaire (ALQ), involving a total of 229 novice teachers in the northern zone of Peninsular Malaysia as respondents. The data was analyzed using Statistical Package for the Social Sciences (SPSS) version 28 and Structural Equation Model-Part Least Square, SmartPLS 4 software.

Findings: The findings showed that accepting change, spirituality, tenacity, and competence constructs have a significant and positive impact on authentic leadership.

Conclusion: Resilience is a skill that teachers should have when influencing students and colleagues.

Research Limitation: The data found in this study were based on questionnaires. The results of the information and findings of the study were limited as they depended on the honesty and willingness of the respondents to answer the questionnaire.

Practical Implication: Spirituality in the workplace is among the key elements in achieving the organization's goals. Spirituality can help teachers have peace of mind when handling conflict. Teachers have to prepare physically and mentally to cope with the changes in organization because they are role models for colleagues and students.

Contribution to Literature: This study contributes to the existing literature by demonstrating that resilience constructs have an influence on authentic leadership among novice teachers.

Keywords: *Authentic leadership, Accepting change, Colleague, Novice teachers, Resilience, Spirituality, Students, Tenacity and competence.*

1. INTRODUCTION

The Ministry of Education Malaysia has developed the Malaysian Education Development Plan 2013-2025 to ensure that Malaysia's education system is world-class. This plan is developed not only to evaluate the existing education system but also to comprehensively monitor and ensure that the goals of the ministry are achieved (Ministry of Education Malaysia, 2013). Clearly, education in Malaysia plays an important role in developing human capital that has a strong identity, skills, a noble personality, is knowledgeable, and has high skills to meet the needs of a developed country (Ministry of Education Malaysia, 2013). Through the fourth Sustainable Development Goal (SDG4), the world's education agenda strives to ensure inclusive and equitable education while at the same time promoting lifelong learning (UNESCO, 2018). Therefore, one of the targets to be achieved in

SDG4 is to produce quality teachers, as quality teachers are a fundamental requirement to produce quality education (UNESCO, 2018).

The production of quality teachers will lead to a variety of positive effects on the school and society (Mammadov & Çimen, 2019). Therefore, to ensure the quality of teachers in Malaysia, the Ministry of Education Malaysia will only select the best candidates to participate in the field of education, and at the same time, the ministry will monitor and equip teachers with support and skills that enable them to practice the best work performance and thus produce quality and excellent-performing students (Ministry of Education Malaysia, 2013).

Basically, the school is an educational institution for primary and secondary levels. In schools, the principal is the leader of the teachers, while the teacher is the leader of the students. A teacher is a leader who is able to take care of his students, control power, and share views with students and colleagues. According to Hoy and Miskel (2008), a person's ability to influence group members and organizations through internal and external elements, goal selection, organizational activities, individual abilities, sharing views, and power relations is a social process in leadership. Therefore, a teacher with authentic leadership will not only focus on guiding students but also lead and guide colleagues to achieve school goals (Harris & Muijs, 2004).

2. PROBLEM STATEMENT

The job specification of a teacher in Malaysia is not only teaching and checking the homework of the students. Apart from carrying out these basic tasks, the duties of a teacher in Malaysia also include certain clerical work and tasks outside the classroom, such as conducting co-curriculum, attending professional development activities, and engaging with parents and the local community (Ministry of Education Malaysia, 2013). As a result of the various tasks that need to be done, this teaching career is seen as challenging career Rathika and Surat (2019), which can trigger various causes of conflict in schools (Rehman & Jaleel, 2020; Shanka & Thuo, 2017). As being a teacher is one of the most challenging professions in most countries, maintaining the commitment and resilience of teachers throughout their service is one of the major problems in the country (Li, Gu, & He, 2019). Novice teachers in particular are likely to face difficulties and concerns in adapting at the beginning of the lesson (Ahmed, Faizi, & Akbar, 2020; Alhamad, 2018; Karatas & Karaman, 2013). This is because today's generation of teachers has to deal with the incomprehension, confusion, and ambiguity of the education system, which constantly bother teachers in the classroom (Shanmugavelu, Parasuraman, Arokiasamy, Kannan, & Vadivelu, 2020). In addition to the ever-changing development of the education system, the roles and responsibilities of teachers are becoming increasingly perplexing, requiring a teacher to have a high degree of resilience (Ismail, Rohana, & Amirmudin, 2011).

The ministry runs a number of initiatives and programs to enhance teachers' performance and competence. Despite the increase in teacher participation through programmes implemented by the ministry to train teachers who are school leaders, the level of teacher leadership is still at a moderate level (Hamidah et al., 2017). In the other research, Mua'azam (2020) found that, the level of motivation to lead among school teachers was lower due to the difference in social norms among them. In fact, Siti, Anis, Abdul, and Kanesan (2019) and Abdullah and Ismail (2018) think that the authentic leadership relationship is still at a low level. The views of Siti et al. (2019) and Abdullah and Ismail (2018) differ from those of Avolio, Walumbwa, and Weber (2009), which state that authentic leadership has the opportunity to influence changes in organizational culture, behavior, and interactive relationships between leaders and followers. This is because authentic leadership also has its own strengths, where school leaders who practice authentic leadership are able to affect the teachers by making decisions by listening to their views (Agezo, 2010).

Therefore, Siti et al. (2019) suggested that further studies of authentic leadership should be carried out and cover the whole of Malaysia to illustrate a more comprehensive situation. Hence, understanding the impact of resilience on authentic leadership among teachers is crucial. This is because teachers are a vital asset for any education system in the nation, and their well-being is integral to achieving academic excellence (Ishak & Rusman, 2018). Without the active participation and support of teachers, the implementation of educational initiatives may be hindered.

3. LITERATURE REVIEW

Resilience is defined as the ability of an individual to push themselves towards psychological, social, cultural, and physical resources to maintain their well-being (Ungar, 2014). In the context of

education, resilience is a positive attitude developed that leads to teacher engagement, commitment, enthusiasm, and well-being (Mansfield, Beltman, Broadley, & Weatherby-Fell, 2016). Resilience also means the ability of an individual to deal with hardships and, at the same time, develop professional and social competencies (Rirkin & Hooperman, 1991). The resilience used in this study is the ability and capability of teachers to meet challenges in the world of education. Resilience is also related to the internal strength of teachers to bounce back when faced with challenges and difficulties in the education system, colleagues, and assignments during the teaching and learning process. According to Connor and Davidson (2003), there are five dimensions of resilience: 1) tenacity and competence 2) trusting in one's instincts and tolerance of negative affect 3) acceptance of change and a secure relationship 4) control 5) spiritual. The definition of each dimension is as per Table 1.

Table 1. Resilience construct.

Five constructs of resilience
<p>Tenacity and competence Tenacity is defined as the desire, effort, and determination to overcome the life obstacles faced by each individual (Çelik, Aka, Çalik, Bayraktar, & Bayram, 2018).</p>
<p>Tolerance of negative affect Negative affect is defined as a diversity of negative emotions, i.e., anger, humiliation, and fear, that can add negative feelings to oneself (Benetti & Kambouropoulos, 2006).</p>
<p>Acceptance of change Acceptance of change is defined as analyzing the need to be flexible, have a high tolerance in the event of ambiguity, and always be aware that the presence of emotions always goes hand in hand with change (Bonalumi & Fisher, 1999).</p>
<p>Control Control is defined as the level of the individual's belief that they have control and influence over the events that occur in their lives (Dolan & Renaud, 1992).</p>
<p>Spirituality Spirituality is defined as personal beliefs, meditations, or passions that allow individuals to survive or thrive (Elkington & Breen, 2015).</p>

Accordingly, authentic leadership is defined as the behavior of a leader who adopts both a positive psychological capacity and a positive ethical climate (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Authentic leadership is also defined as an individual who acts deeply on personal values and beliefs, interacts with others sincerely and reliably, and also leads in a manner of authenticity that attracts followers (Avolio et al., 2009). This is because a leader who leads in an authentic way will create a trusted relationship with the members of the organization, and the members who work under him will be happy to be working under him (Hassan & Ahmed, 2011). According to (Gardner, Avolio, Luthans, & May, 2005), a leader's genuine leadership is based on personal experience, thinking, choices, values, and acting in accordance with their own suitability. Similarly, authenticity is generated by the leader himself based on the actions he practiced in his daily life (Kernis, 2003). Therefore, according to Gardner et al. (2005), the basis of the theory of authentic leadership is based on the concept of the personal legitimacy of the leader himself and not on his behavior. According to Southwick, Martini, Charney, and Southwick (2017) and Gaddy, Gonzalez, Lathan, and Graham (2017), leaders play an important role in influencing employees by displaying positive resilience when faced with challenges. In organizations such as schools, a positive educational atmosphere results from the ability of teachers to manage classes and students' attitudes in the classroom. A teacher in particular should have the ability to lead and influence students during the learning process, where the teacher's leadership style will also affect the teacher's efficacy in the classroom. Besides, the challenges faced by teachers in the classroom and in school require teachers to have a high level of resilience. Through a review of the literature, having a

high level of resilience is seen as one of the elements of leadership style, and together with positive personalities, teachers will be able to influence those around them.

According to [Lazaridou \(2020\)](#), leaders are individuals with unique qualities that distinguish them from others. Organizations such as schools are constantly undergoing challenging changes, and resilience is an important thing that school staff, especially teachers, should have ([Lazaridou, 2020](#)). According to [Zehir and Narcikara \(2016\)](#), resilience in an individual will occur when the individual has sufficient resources, such as human capital, emotions, and the environment, that will influence the development of resilience in the individual. Research conducted by [Zehir and Narcikara \(2016\)](#) focuses on authentic leadership in organizations, as authentic leadership is a positive form of leadership that can impact individual identity and individual productivity. Resilience is an important thing to have in an organization due to the changes that often occur. Therefore, the level of resilience exhibited by an individual is a determining factor in the successful operation and achievement of goals by an organization. The role of the leader within the organization is crucial in fostering the development of resilience ([Southwick et al., 2017](#)).

4. RESEARCH OBJECTIVE

This study aimed to investigate the influence of resilience in terms of tenacity and competence, trusting in one's instinct and tolerance of negative affect, acceptance of change and secure relationships, control, and spirituality on authentic leadership among novice teachers in the Northern part of Malaysia through the following hypotheses.

4.1. Research Hypotheses

Ho1: There is no significant influence between tenacity, competence, and authentic leadership among novice teachers in Malaysia.

Ho2: There is no significant influence between instinct and authentic leadership among novice teachers in Malaysia.

Ho3: There is no significant influence between accepting change and authentic leadership among novice teachers in Malaysia.

Ho4: There is no significant influence between control and authentic leadership among novice teachers in Malaysia.

Ho5: There is no significant influence between spirituality and authentic leadership among novice teachers in Malaysia.

5. METHODOLOGY

5.1. Population and Sampling

This study was conducted using a cross-sectional approach, where the process for collecting quantitative data was through questionnaires answered by respondents. The target population for this study was novice teachers from the Northern part of Malaysia. A total of 281 respondents were selected through a purposeful sampling technique.

5.2. Instrument

This study used the Authentic Leadership Questionnaire (ALQ) from [Walumbwa et al. \(2008\)](#) and the Connor-Davidson Resilience Scale (CD-RISC) from [Connor and Davidson \(2003\)](#). The Authentic Leadership Questionnaire (ALQ) comprised a set of 16 question items, whereas the CD-RISC tool was composed of 25 items that were categorized into five dimensions, namely tenacity and competence, trusting in one's instinct and tolerance of negative affect, acceptance of change and secure relationships, control, and spirituality. The study data was analyzed through descriptive methods using Statistical Package for the Social Sciences (SPSS) version 28 software, and to examine the influence of resilience on authentic leadership, SmartPLS 4 software was used.

5.3. Pilot Study

The pilot test phase was implemented to facilitate the researchers' review of the respondents' understanding of the study instrument. During the pilot testing phase, researchers would also be able to test the reliability of instruments to make sure that the quality assessment of resilience was in line with how the actual questionnaire (primary source) was understood. In order to obtain information to achieve the objectives of the study, [Chuan and Penyelidikan \(2006\)](#) recommended that a pilot study be conducted to determine the validity and reliability of the selected instrument. Although the questionnaire has gone through the translation process, a pilot test would still need to be carried out in order to obtain a positive response ([Ahmad, Rahman, & Zuraidah, 2014](#)) and avoid cross-cultural problems ([Wild et al., 2005](#)).

[Creswell \(2005\)](#) asserts that researchers evaluate the reliability of their instruments to establish the measuring device's validity and stability before conducting the study. Further, in accordance with the suggestion put forth by [Creswell \(2014\)](#), researchers employed Cronbach's Alpha technique to assess the coherence and dependability of the research tools. For [Sekaran \(2005\)](#), the alpha value of 0.61 to 0.79 is an alpha value that can be adopted in studies ([Sekaran, 2005](#)). [Table 2](#) shows the reliability of the questionnaire.

Table 2. Cronbach alpha of the instrument.

Instrument	Cronbach alpha
Tenacity and competence	0.89
Trusting in one's instinct and tolerance of negative affect	0.83
Acceptance of change and secure relationship	0.82
Control	0.71
Spirituality	0.61
Resilience	0.94
Authentic leadership	0.84

The resilient reliability analysis ([Connor & Davidson, 2003](#)) showed a high alpha value of $\alpha = 0.94$. The alpha value of each dimension of tenacity and competence resilience was ($\alpha = 0.84$), trusting in one's instinct and tolerance of negative affect ($\alpha = 0.83$), acceptance of change and secure relationships ($\alpha = 0.82$), control ($\alpha = 0.71$) and spirituality ($\alpha = 0.61$).

5.4. Procedure

The process of distributing the questionnaire started by sending questionnaires to the Institute of Teacher Studies in the Northern part of Malaysia, which were then distributed to the selected sample studies. The first step to conducting an actual study was to obtain permission from the Research and Innovation Management Centre of the University of Utara Malaysia (RIMC). After obtaining permission from the RIMC, researchers applied for permission from the Education and Policy Planning Division (EPRD) at the Ministry of Education Malaysia through the online application system at URL: <https://eras.moe.gov.my/>. Subsequently, the researchers applied for permission from the respective schools and faculties to distribute the study questions. A total of 281 survey questions were distributed, and the total return received was 229 questionnaires. The data was analyzed using Statistical Package for the Social Sciences (SPSS) version 28 and SmartPLS 4 software.

6. RESULTS

[Table 3](#) shows that out of the 229 questionnaires collected, 53 or 23.1%, were from male respondents, while the remaining 176, or 76.9%, were from female respondents. With ages ranging from 24 years old to 39 years old ($M = 25.9$).

Table 3. Demographic.

Gender	Frequency	Percentage (%)
Male	53	23.1
Female	176	76.9
Total	229	100

The Structural Equation Model-Partial Least Square, or SEM-PLS, through SmartPLS4 (Ringle, Wende, & Becker, 2022) was used to explore the construct of resilience that influences novice teachers' authentic leadership practices. PLS-SEM, a variance-based technique, is very suitable to be used as a statistical tool to examine measurement and structural models because it does not require the assumption of normality, and survey studies are usually not normally distributed (Hair Jr et al., 2021). Regarding the measurement model, external loadings of each item and average variance extracted (AVE) were examined to establish convergent validity (Hair Jr et al., 2021). Similarly, the Fornell-Larcker criterion, cross-loading, and the Heterotrait-Monotrait Ratio (HTMT) were evaluated to establish discriminant validity (Hair, Thomas, Hult, Ringle, & Sarstedt, 2017). The researchers followed the suggestions of Anderson and Gerbing (1988) to test the model developed using a 2-step approach. First, the validity and reliability of the instruments were tested using the guidelines of Hair, Risher, Sarstedt, and Ringle (2019) and Ramay, Cheah, Chuah, Ting, and Memon (2018), followed by the structural model assessment to test the hypothesis developed.

6.1. Measurement Model Assessment

The researchers used the measurement model to assess the loadings, average variance extracted (AVE) and composite reliability (CR), as shown in Figure 1, where the values of loadings, AVE and CR should be ≥ 0.5 , ≥ 0.5 and ≥ 0.7 respectively (Hair et al., 2019). Table 4 shows that the AVEs were all higher than 0.5 and the CRs were all higher than 0.7. The loadings were acceptable, with only one or two loadings less than 0.708.

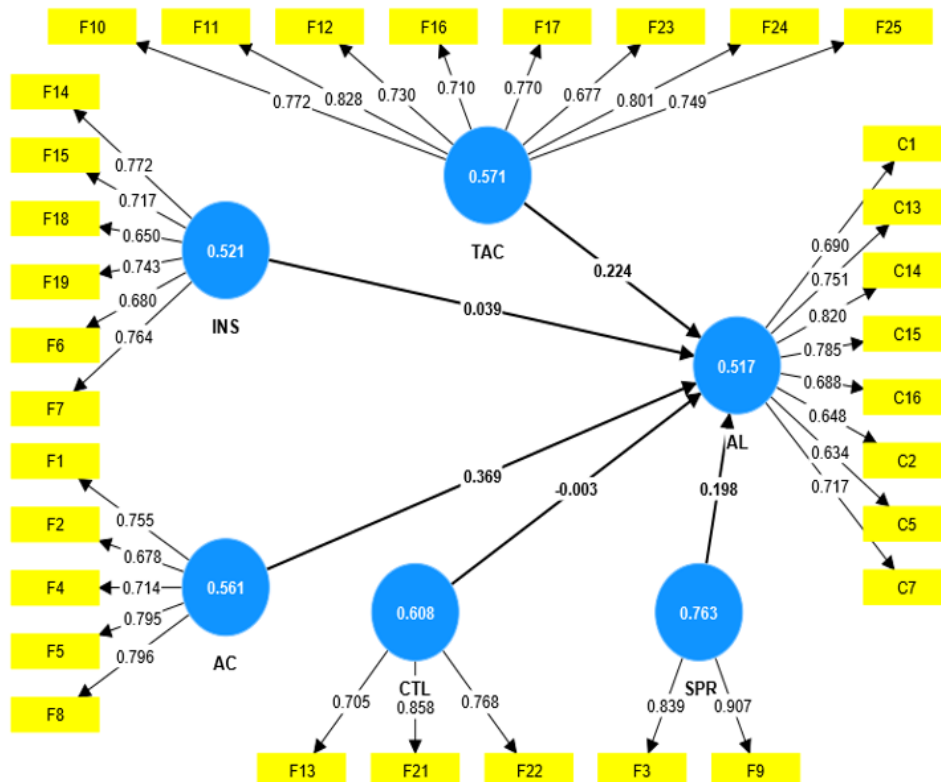


Figure 1. Measurement model.

Table 4. Measurement model results.

Construct	Items	Loadings	CA	CR	AVE
AC	F1	0.755	0.805	0.864	0.561
	F2	0.678			
	F4	0.714			
	F5	0.795			
	F8	0.796			
CTL	F13	0.705	0.682	0.822	0.608
	F21	0.858			
	F22	0.768			
INS	F14	0.772	0.818	0.867	0.521
	F15	0.717			
	F18	0.65			
	F19	0.743			
	F6	0.68			
	F7	0.764			
TAC	F10	0.772	0.893	0.914	0.571
	F11	0.828			
	F12	0.73			
	F16	0.71			
	F17	0.77			
	F23	0.677			
	F24	0.801			
	F25	0.749			
SPR	F3	0.839	0.694	0.865	0.763
	F9	0.907			
AL	C1	0.69	0.865	0.895	0.517
	C13	0.751			
	C14	0.82			
	C15	0.785			
	C16	0.688			
	C2	0.648			
	C5	0.634			
	C7	0.717			

Note: AC = Accepting change, CTL = Control, INS = Instinct, SPR = Spirituality, TAC = Tenacity and competence, AL = Authentic leadership.

In step 2, the researchers assessed the discriminant validity using the Fornell-Larker criterion (see Table 5), cross loading (see Table 6), and HTMT criterion (see Table 7), as suggested by Hair Jr et al. (2021).

Table 5. Discriminant validity – Fornell-Larker criterion.

Constructs	AC	AL	CTL	INS	SPR	TAC
AC	0.749					
AL	0.709	0.719				
CTL	0.651	0.529	0.780			
INS	0.709	0.556	0.662	0.722		
SPR	0.697	0.619	0.492	0.477	0.874	
TAC	0.787	0.670	0.753	0.727	0.658	0.756

Note: AC = Accepting change, CTL = Control, INS = Instinct, SPR = Spirituality, TAC = Tenacity and competence, AL = Authentic leadership.

Table 6. Discriminant validity – cross loading results.

Items	AC	AL	CTL	INS	SPR	TAC
C1	0.430	0.690	0.318	0.331	0.413	0.398
C13	0.554	0.751	0.380	0.419	0.496	0.488
C14	0.621	0.820	0.432	0.464	0.544	0.563
C15	0.524	0.785	0.348	0.377	0.523	0.520
C16	0.457	0.688	0.362	0.370	0.446	0.480
C2	0.458	0.648	0.347	0.328	0.355	0.413
C5	0.513	0.634	0.494	0.494	0.339	0.516
C7	0.482	0.717	0.336	0.382	0.417	0.445
F1	0.755	0.509	0.439	0.541	0.43	0.549
F10	0.677	0.585	0.515	0.48	0.677	0.772
F11	0.7	0.595	0.613	0.521	0.671	0.828
F12	0.596	0.448	0.522	0.565	0.448	0.73
F13	0.454	0.333	0.705	0.485	0.345	0.48
F14	0.444	0.341	0.442	0.772	0.252	0.443
F15	0.466	0.414	0.453	0.717	0.286	0.527
F16	0.544	0.43	0.55	0.684	0.331	0.71
F17	0.572	0.488	0.612	0.681	0.427	0.77
F18	0.378	0.284	0.41	0.65	0.219	0.472
F19	0.517	0.38	0.616	0.743	0.321	0.596
F2	0.678	0.468	0.425	0.417	0.448	0.454
F21	0.61	0.512	0.858	0.602	0.481	0.722
F22	0.431	0.36	0.768	0.445	0.296	0.516
F23	0.504	0.391	0.607	0.559	0.319	0.677
F24	0.587	0.534	0.656	0.502	0.509	0.801
F25	0.548	0.53	0.502	0.478	0.485	0.749
F3	0.558	0.466	0.379	0.384	0.839	0.461
F4	0.714	0.433	0.529	0.567	0.397	0.522
F5	0.795	0.599	0.503	0.504	0.642	0.668
F6	0.52	0.38	0.422	0.68	0.4	0.497
F7	0.663	0.531	0.51	0.764	0.501	0.584
F8	0.796	0.612	0.543	0.622	0.64	0.711
F9	0.653	0.603	0.472	0.445	0.907	0.666

Note: AC = Accepting change, CTL = Control, INS = Instinct, SPR = Spirituality, TAC = Tenacity and competence, AL = Authentic leadership.

Table 7. Discriminant validity – Heterotrait-Monotrait (HTMT).

Constructs	AC	AL	CTL	INS	SPR	TAC
AC						
AL	0.833					
CTL	0.863	0.665				
INS	0.849	0.633	0.867			
SPR	0.908	0.784	0.689	0.600		
TAC	0.910	0.748	0.946	0.857	0.797	

Note: AC = Accepting change, CTL = Control, INS = Instinct, SPR = Spirituality, TAC = Tenacity and competence, AL = Authentic leadership.

As shown in [Table 7](#), the value of discriminant validity using the HTMT criterion indicated that the total values of correlation between each construct were less than 1.00 and accepted ([Franke & Sarstedt, 2019](#)). As such, it was concluded that the respondents understood that all constructs

differed from each other. Taken together, both of these validity tests have shown that the measurement items were both valid and reliable.

Table 8. Collinearity statistics (VIF) for indicators – outer model.

Items	VIF
C1	1.754
C13	1.814
C14	2.256
C15	2.352
C16	1.739
C2	1.594
C5	1.469
C7	1.704
F1	1.661
F10	2.247
F11	2.663
F12	1.906
F13	1.252
F14	1.875
F15	1.512
F16	2.027
F17	2.182
F18	1.491
F19	1.746
F2	1.404
F21	1.394
F22	1.371
F23	1.747
F24	2.409
F25	1.917
F3	1.393
F4	1.536
F5	1.773
F6	1.433
F7	1.551
F8	1.77
F9	1.393

Since data was collected using a single source, the Variance Inflation Factor (VIF) statistic was utilized to assess multicollinearity in the indicators (Fornell & Bookstein, 1982), and if the $VIF \leq 3.3$, then there is no bias from the single source data. The analysis yielded a VIF less than 3.3, so single-source bias was not a serious issue with our data. According to Hair, Hult, Ringle, and Sarstedt (2016), multicollinearity is not a serious issue if the value for VIF is below 5. Table 8 presents the VIF values for the indicators in the study, which revealed that the VIF for each of the indicators was below the recommended threshold.

6.2. Structural Model Assessment

Figure 2 presents the evaluation of path coefficients, that is, the relationships amongst study constructs and their statistical significance. Table 9 shows a summary of the criteria used to test the hypotheses developed.

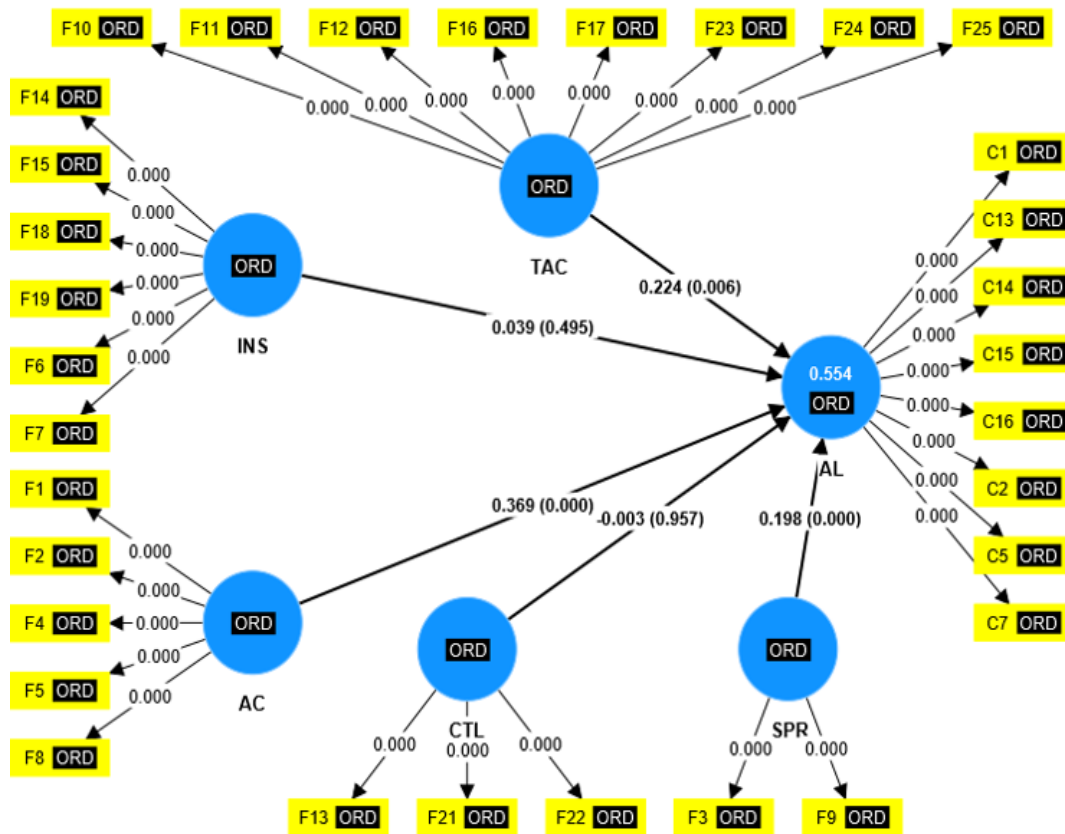


Figure 2. Structural model.

Table 9. Hypotheses testing result.

Hypotheses	Relationship	β	SD	T- values	P-values	Result
H _{o1}	AC → AL	0.369	0.063	5.840	0.000	Supported
H _{o2}	CTL → AL	-0.003	0.060	0.054	0.957	Rejected
H _{o3}	INS → AL	0.039	0.058	0.682	0.495	Rejected
H _{o4}	SPR → AL	0.198	0.052	3.782	0.000	Supported
H _{o5}	TAC → AL	0.224	0.082	2.742	0.006	Supported

Note: AC = Accepting change, CTL = Control, INS = Instinct, SPR = Spirituality, TAC = Tenacity and competence, AL = Authentic leadership.

The researchers tested the effect of five constructs of resilience on authentic leadership. The results revealed that the accepting change construct ($B = .369$, $t = 5.840$, $p < 0.001$), spirituality ($B = .198$, $t = 3.782$, $p < 0.001$), and tenacity and competence construct ($B = .224$, $t = 2.742$, $p < 0.05$) have a significant and positive impact on authentic leadership. Hence, H_{o1}, H_{o3} and H_{o5} were supported. However, the results of the other constructs did not significantly and positively affect authentic leadership, as shown in Table 9; CTL→AL ($B = -.003$, $t = .054$, $p > 0.05$) and INS→AL ($B = .198$, $t = 3.782$, $p > 0.05$). Thus, H_{o2} and H_{o4} were rejected. Additionally, Shmueli et al. (2019) suggested using PLS to assess the predictive relevance of all indicators. As suggested, a holdout sample-based procedure that generated case-level predictions on an item or a construct level using the PLS-Predict with a 10-fold procedure was used.

Shmueli et al. (2019) stated that there is a strong predictive power if all the item differences are low. On the other hand, if all the item differences are high, the predictive relevance cannot be confirmed. Meanwhile, if the majority of the item differences are low, then there is moderate predictive power. Based on Table 10, half of the errors were lower. Thus, the researcher concluded that our model has moderate predictive power.

Table 10. Model's predictive power using PLS predict.

Items	PLS-SEM_RMSE	LM_RMSE	PLS-LM	Q ² predict
C1	0.901	0.918	-0.017	0.194
C13	0.862	0.902	-0.04	0.317
C14	0.748	0.776	-0.028	0.402
C15	0.745	0.757	-0.012	0.314
C16	0.830	0.846	-0.016	0.248
C2	0.921	0.967	-0.046	0.202
C5	1.000	0.965	0.035	0.263
C7	0.876	0.933	-0.057	0.239

7. DISCUSSION

The results of the SEM-PLS 4.0 analysis showed that only accepting change, spirituality, and tenacity and competence constructs have a significant and positive impact on authentic leadership among novice teachers, while the other two constructs (control and trusting in one's instinct) did not significantly and positively affect authentic leadership. According to [Karen \(2021\)](#), spirituality plays the role of a guide in an individual's life. An individual who is focused on spirituality in his life is able to play the role of leader and remain in charge despite various challenges ([Karen, 2021](#)). In the organization, spirituality plays the role of an agent of change ([Garg, 2018](#)). According to [Sapta, Rustiarini, Kusuma, and Astakoni \(2021\)](#), the work environment plays a role in creating a leadership style. Spirituality in the workplace and spirituality in leadership are among the key elements in achieving the organization's goals. A teacher with strong resilience is a teacher who has emotional, social, and spiritual intelligence in themselves. Teachers who possess social intelligence are able to easily interact with others and create a positive environment, while teachers who possess spiritual intelligence can find peace when faced with challenges in their lives. Teachers who possess emotional intelligence are able to control their own feelings during stress and failure ([Mohd, Maria, Abdul, & Samsilah, 2015](#)).

Moreover, changes in an organization always occur due to external and internal factors. In the face of change, a leader should be prepared and take steps to cope without affecting the people around him ([Junnaid, Miralam, & Jeet, 2020](#)). In schools, teachers are among the key players in the development of man, society, and the country. Schools are also a service sector group that emphasizes teachers' efforts to achieve quality education performance and will always maintain quality education performance ([Shih & Susanto, 2010](#)). Due to the ever-changing development of the education system, the roles and responsibilities of teachers are becoming increasingly challenging, and the responsibilities assumed by teachers require them to have high resilience ([Ismail et al., 2011](#)). Furthermore, according to [Mohd et al. \(2015\)](#), a teacher who is less resilient is unable to do his job well and will lead to less productivity, which in turn will interfere with the teacher's commitment.

At school, the teacher is also a leader for colleagues and students in the classroom. According to [Hoy and Miskel \(2008\)](#), a person's ability to influence group members and organizations through internal and external elements, goal selection, organizational activities, individual abilities, sharing views, and power relations is a social process in leadership. Therefore, a teacher with authentic leadership will not only focus on the scope of guiding students but also lead and guide colleagues to achieve school goals ([Harris & Muijs, 2004](#)). In addition to having authentic leadership qualities, teachers must also have a high resilience level. Due to the changes and challenges that are constantly experienced in the world of education ([Polat & Iskender, 2018](#)). Psychologically, the values that a teacher acquires, besides being resilient, will make them more responsible in their job ([Salasiah & Norazlin, 2020](#)).

8. CONCLUSION

In conclusion, a teacher with high resilience should see the problems present in their lives as an opportunity for them to increase strength and success (Mohd et al., 2015). Notably, the resilience in an individual is able to give the individual the confidence to rise again after facing the challenges and problems in life and prove that the individual is capable of creating their own self-esteem. In light of the dynamic nature of the education system, cultivating and augmenting high resilience is deemed a crucial attribute that teachers should possess. This is to ensure that their leadership style aligns with their positive disposition, thereby enabling them to exert a positive influence on their peers. In summary, to form a teacher who is competent and holistic, in addition to having academic qualifications and wisdom, internal aspects such as strong resilience and knowledge in leadership must be possessed to ensure that the commitment rendered will not be affected and thus be able to become a quality teacher.

FUNDING

This research is supported by Ministry of Higher Education (MOHE) of Malaysia through The Fundamental Research Grant Scheme (Grant number: FRGS/1/2019/SS06/UUM/02/4).

INSTITUTIONAL REVIEW BOARD STATEMENT

The Ethical Committee of the Ministry of Higher Education of Malaysia has granted approval for this study on 30 August 2019 (Ref. No. FRGS/1/2019/SS06/UUM/02/4).

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

ARTICLE HISTORY

Received: 28 April 2023/ Revised: 6 June 2023/ Accepted: 19 June 2023/ Published: 3 July 2023

AUTHORS' CONTRIBUTIONS

All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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REFERENCES

- Abdullah, A. S., & Ismail, S. N. (2018). The interaction of shared leadership and authentic leadership of the principal on teacher motivation and work pressure. *JuPiDi: Journal of Educational Leadership*, 5(1), 16-32.
- Agezo, K. C. (2010). Female leadership and school effectiveness in Junior High Schools in Ghana. *Journal of Educational Administration*, 48(6), 689-703. <https://doi.org/10.1108/09578231011079557>
- Ahmad, K. A., Rahman, I. A., & Zuraidah, A. (2014). Factors associated to teachers' motivation towards the implementation of learning supervision in secondary school. *International Journal of Scientific and Research Publications*, 4(10), 1-8.
- Ahmed, G., Faizi, W. U. N., & Akbar, S. (2020). Challenges of novice teachers and strategies to cope at the secondary level. *Global Regional Review*, 5(1), 403-416. [http://dx.doi.org/10.31703/grr.2020\(V-I\).44](http://dx.doi.org/10.31703/grr.2020(V-I).44)
- Alhamad, R. (2018). Challenges and induction needs of novice English as a foreign language teachers in Saudi Arabia. *International Journal of Education and Literacy Studies*, 6(1), 50-63. <https://doi.org/10.7575/aiac.ijels.v.6n.1p.50>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, 60(1), 421-449. <https://doi.org/10.1146/annurev.psych.60.110707.163621>
- Benetti, C., & Kambouropoulos, N. (2006). Affect-regulated indirect effects of trait anxiety and trait resilience on self-esteem. *Personality and Individual Differences*, 41(2), 341-352. <https://doi.org/10.1016/j.paid.2006.01.015>
- Bonalumi, N., & Fisher, K. (1999). Health care change: Challenge for nurse administrators. *Nursing Administration Quarterly*, 23(2), 69-73. <https://doi.org/10.1097/00006216-199923020-00009>
- Çelik, I., Aka, S. T., Çalik, F., Bayraktar, G., & Bayram, M. (2018). The investigation on physical education teacher candidate's resilience, tenacity and motivation levels. *Journal of Education and e-Learning Research*, 5(3), 174-178. <https://doi.org/10.20448/journal.509.2018.53.174.178>
- Chuan, C. L., & Penyelidikan, J. (2006). Sample size estimation using Krejcie and Morgan and Cohen statistical power analysis: A comparison. *IPBL Research Journal*, 7(1), 78-86.

- Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale. *Depression and Anxiety, 18*, 76-82. <https://doi.org/10.1002/da.10113>
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Education.
- Creswell, J. W. (2014). *Educational research: Planning, conducting and evaluating quantitative and qualitative research*. (4th ed.). Harlow, Essex: Pearson Education Limited.
- Dolan, S. L., & Renaud, S. (1992). Individual, organizational and social determinants of managerial burnout: A multivariate approach. *Journal of Social Behavior & Personality, 7*(1), 95-110.
- Elkington, R., & Breen, J. M. (2015). How senior leaders develop resilience in adversity: A qualitative study. *Journal of Leadership, Accountability & Ethics, 12*(4), 93-110.
- Fornell, C., & Bookstein, F. L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing Research, 19*(4), 440-452. <https://doi.org/10.2307/3151718>
- Franke, G., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: A comparison of four procedures. *Internet Research, 29*(3), 430-447. <https://doi.org/10.1108/IntR-12-2017-0515>
- Gaddy, J. W., Gonzalez, S. P., Lathan, C. A., & Graham, P. K. (2017). The perception of authentic leadership on subordinate resilience. *Military Behavioral Health, 5*(1), 64-72. <https://doi.org/10.1080/21635781.2016.1243495>
- Gardner, W. L., Avolio, B. J., Luthans, F., & May, D. (2005). Can you see the real me? A self-based model of authentic leader and follower development. *The Leadership Quarterly, 16*(3), 343-372. <https://doi.org/10.1016/j.leaqua.2005.03.003>
- Garg, N. (2018). Workplace spirituality and organizational commitment: An empirical exploration. *Purushartha-A Journal of Management, Ethics and Spirituality, 10*(2), 8-24. <https://doi.org/10.21844/pajmes.v10i02.10566>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1), 2-24. <https://doi.org/10.1108/eb-11-2018-0203>
- Hair, J. F., Thomas, G., Hult, M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling* (2nd ed.). Thousand Oakes, CA: Sage.
- Hair, J. F. J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modelling (PLS-SEM)*. Thousand Oakes, CA: Sage Publications.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Partial least squares structural equation modeling (PLS-SEM) using R: A workbook. In (pp. 197). Switzerland: Springer Nature.
- Hamidah, Y., Vyapuri, L., Norasibah, A. J., Mahaliza, M., Mohd, A., & Mohd, N. (2017). The factors affecting teacher leadership in Malaysia primary school. *International Research in Business and Social Sciences, 7*(6), 620-631. <http://dx.doi.org/10.6007/IJARSS/v7-i6/3025>
- Harris, A., & Muijs, D. (2004). *Improving schools through teacher leadership*. London: Routledge.
- Hassan, A., & Ahmed, F. (2011). Authentic leadership, trust and work engagement. *International Journal of Human and Social Sciences, 6*(3), 164-170. <https://doi.org/10.5281/zenodo.1075160>
- Hoy, W. K., & Miskel, C. G. (2008). Educational administration: Theory, research and practice. In (8th ed., pp. 420). New York: McGraw-Hill.
- Ishak, R., & Rusman, S. N. F. (2018). Teacher work performance and its relationship with workload, work environment and personal factors: A case study in a school in Sabah. *JuPiDi: Journal of Educational Leadership, 5*(1), 1-15.
- Ismail, S. N., Rohana, H., & Amirmudin, U. (2011). The stability of the application of the national education philosophy is the core of becoming a technical and vocational education teacher. *Journal of Edupres, 1*(2011), 357-363.
- Junnaid, M. H., Miralam, M. S., & Jeet, V. (2020). Leadership and organizational change management in unpredictable situations in responding to Covid-19 pandemic. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 11*(16), 1-12. <http://doi.org/10.14456/ITJEMAST.2020.322>
- Karatas, P., & Karaman, A. C. (2013). Challenges faced by novice language teacher: Support, identity, and pedagogy in the initial years of teaching. *The International Journal of Research in Teacher Education, 4*(3), 10-23.
- Karen, A. L. (2021). Fresh strategies for empowering women's leadership development: Spirituality as an untapped tool. *Journal of College and Character, 22*(2), 87-97. <https://doi.org/10.1080/2194587X.2021.1898983>
- Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry, 14*(1), 1-26.
- Lazaridou, A. (2020). Personality and resilience characteristics of preschool principals: An iterative study. *International Journal of Educational Management, 35*(1), 29-46. <https://doi.org/10.1108/ijem-07-2020-0330>
- Li, Q., Gu, Q., & He, W. (2019). Resilience of Chinese teachers: Why perceived work conditions and relational trust matter. *Measurement: Interdisciplinary Research and Perspectives, 17*(3), 143-159. <https://doi.org/10.1080/15366367.2019.1588593>
- Mammadov, R., & Çimen, I. (2019). Optimizing teacher quality based on student performance: A data envelopment analysis on PISA and TALIS. *International Journal of Instruction, 12*(4), 767-788. <https://doi.org/10.29333/iji.2019.12449a>
- Mansfield, C., Beltman, S., Broadley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidenced informed framework. *Teaching and Teacher Education, 54*, 77-87. <https://doi.org/10.1016/j.tate.2015.11.016>
- Ministry of Education Malaysia. (2013). *Malaysia education blueprint 2013-2025*. Putrajaya: Ministry of education Malaysia. Retrieved from <https://www.moe.gov.my/en/muat-turun/penerbitan-dan-jurnal/pppm-2013-2025-pendidikan-prasekolah-hingga-lepas-menengah/1207-malaysia-education-blueprint-2013-2025/file>

- Mohd, S. O., Maria, c. A., Abdul, A. I., & Samsilah, R. (2015). Resilience among millennial teachers 21. *International Journal of Education and Training*, 1(2), 1-9.
- Mua'azam, M. (2020). Motivation to lead for school improvement: The role of school teachers' strategic thinking skills. *Journal of Critical Review*, 7(8), 1542-1549.
- Polat, D. D., & Iskender, M. (2018). Exploring teachers' resilience in relation to job satisfaction, burnout, organizational commitment and perception of organizational climate. *International Journal of Psychology and Educational Studies*, 5(3), 1-13. <https://doi.org/10.17220/ijpes.2018.03.001>
- Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). *Partial least squares structural equation modeling (PLS-SEM) using smartPLS 3.0: An updated guide and practical guide to statistical analysis* (2nd ed.). Kuala Lumpur Malaysia: Pearson.
- Rathika, V. S., & Surat, S. (2019). The relationship between stress and work-family conflict among teachers at the national type school Tamil convent, Seremban. *Journal of the World of Education*, 1(1), 1-8.
- Rehman, T., & Jaleel, F. (2020). Conflict management strategies used by public secondary school teachers in Lahore. *European Online Journal of Natural and Social Science*, 9(3), 558-569.
- Ringle, C. M., Wende, S., & Becker, J.-M. (2022). *SmartPLS 4*. Oststeinbek: SmartPLS. Retrieved from <https://www.smartpls.com>
- Rirkin, M., & Hooperman, M. (1991). *Moving beyond risk to resiliency*. Minneapolis, MN: Minneapolis Public Schools.
- Salasiah, O., & Norazlin, G. (2020). Resilience of special education teachers in North Perak Zone. *Global Conferences Series: Social Sciences, Education and Humanities*, 4(2020), 153-159.
- Sapta, I. K., Rustiarini, N. W., Kusuma, I. G., & Astakoni, I. M. (2021). Spiritual leadership and organizational commitment: The mediation role of workplace spirituality. *Cogent Business & Management*, 8(1), 1-15. <https://doi.org/10.1080/23311975.2021.1966865>
- Sekaran, U. (2005). *Research method for business: A skill building approach*. Singapore: John Wiley & Son (Asia) Pte. Ltd.
- Shanka, E. B., & Thuo, M. (2017). Conflict management and resolution strategies between teachers and school leaders in primary schools of Wolaita Zone, Ethiopia. *Journal of Education and Practice*, 8(4), 63-74.
- Shanmugavelu, G., Parasuraman, B., Arokiasamy, R., Kannan, B., & Vadivelu, M. (2020). The role of teachers in relective teaching in the classroom. *International Journal of Education*, 8(3), 30-33.
- Shih, H. A., & Susanto, E. (2010). Conflict management styles, emotional intelligence, and job performance in public organizations. *International Journal of Conflict Management*, 21(2), 147-168. <https://doi.org/10.1108/10444061011037387>
- Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. *European Journal of Marketing*, 53(11), 2322-2347. <https://doi.org/10.1108/ejm-02-2019-0189>
- Siti, N. I., Anis, S. A., Abdul, G., & Kanesan, A. (2019). The effect of school leaders' authentic leadership on teachers' job stress in the Eastern part of Peninsular Malaysia. *International Journal of Instruction*, 12(2), 67-80. <https://doi.org/10.29333/iji.2019.1225a>
- Southwick, F. S., Martini, B. L., Charney, D. S., & Southwick, S. M. (2017). *Leadership and resilience*. Retrieved from https://www.researchgate.net/publication/318034847_Leadership_and_Resilience
- UNESCO. (2018). *Global education monitoring report 2019: Migration, displacement and education – building bridges, not walls*. Paris: UNESCO.
- Ungar, M. (2014). *Resilience research centre homepage*. Retrieved from <http://www.resilienceresearch.org>
- Walumbwa, F., Avolio, B., Gardner, W., Wernsing, T., & Peterson, S. (2008). Authentic leadership: Development and validation of theory-based measure. *Journal of Management*, 34(1), 89–126. <https://doi.org/10.1177/0149206307308913>
- Wild, D., Grove, A., Martin, M., Eremenco, S., McElroy, S., Verjee-Lorenz, A., & Erikson, P. (2005). Principles of good practice for the translation and cultural adaptation process for patient-reported outcomes (PRO) measures: Report of the ISPOR task force for translation and cultural adaptation. *Value in Health*, 8(2), 94-104. <https://doi.org/10.1111/j.1524-4733.2005.04054.x>
- Zehir, C., & Narçikara, E. (2016). Effects of resilience on productivity under authentic leadership. *Procedia-Social and Behavioral Sciences*, 235, 250-258. <https://doi.org/10.1016/j.sbspro.2016.11.021>