

FREQUENCY LEVEL OF THE USE OF MOBILE CONTENT ELEMENTS AMONG PRESCHOOL TEACHERS IN THE PREPARATION OF LEARNING ACTIVITIES

TAHAP KEKERAPAN PENGGUNAAN ELEMEN KANDUNGAN MOBILE DALAM KALANGAN GURU PRASEKOLAH DALAM PENYEDIAAN AKTIVITI PEMBELAJARAN

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Abstract: Most principals have an instinctive awareness that organizational culture is a key element of school success. Because understanding, beliefs, and perceptions of educators impact instructional planning, educational reform, and students' educational experiences, there is a genuine need to understand those beliefs and perceptions. They might say their school has a good culture when teachers are expressing a shared vision and students are succeeding. Beliefs of teachers, principals, and policy makers regarding the complexity of STEM content and the ability of students can shape the manner in which STEM education is offered in schools. This study aims to examine the power of control and control belief strength instruments. Control refers to the ability to influence what is happening or what will happen. The preliminary validity evidence of Control belief was gained via exploratory factor analysis (EFA). By virtue of the EFA procedure, the study used the principal axis factoring extraction and the varimax rotation. The amount of 151 samples were taken from school leaders in Malaysia. The results showed that EFA has converged two factors. The complexity and multiple perspective of STEM education add challenges to the scholarly activity in determine the category. Therefore, this study provides a platform for further empirical inquiry and causal relationship study in the future.

Keywords: Normative belief, injunctive belief, descriptive normative belief, school leaders, exploratory factor analysis (EFA)

Abstrak: Kebanyakan pengetua mempunyai kesedaran naluri bahawa budaya organisasi adalah elemen utama kejayaan sekolah. Oleh kerana pemahaman, kepercayaan dan persepsi pendidik memberi kesan kepada perancangan pengajaran, pembaharuan pendidikan dan pengalaman pendidikan pelajar, terdapat keperluan yang tulen untuk memahami kepercayaan dan persepsi tersebut. Mereka mungkin mengatakan sekolah mereka mempunyai budaya yang baik apabila guru menyatakan visi bersama dan pelajar berjaya. Kepercayaan guru, pengetua dan pembuat dasar mengenai kerumitan kandungan STEM dan keupayaan pelajar boleh membentuk cara pendidikan STEM

ditawarkan di sekolah. Kajian ini bertujuan untuk mengkaji kuasa kawalan dan instrumen kekuatan kepercayaan kawalan. Kawalan merujuk kepada keupayaan untuk mempengaruhi apa yang sedang berlaku atau apa yang akan berlaku. Bukti kesahan awal kepercayaan Kawalan diperoleh melalui analisis faktor penerokaan (EFA). Berdasarkan prosedur EFA, kajian ini menggunakan pengekstrakan pemfaktoran paksi utama dan putaran varimax. Sebanyak 151 sampel telah diambil daripada pemimpin sekolah di Malaysia. Keputusan menunjukkan bahawa EFA telah menumpu dua faktor. Kerumitan dan pelbagai perspektif pendidikan STEM menambah cabaran kepada aktiviti ilmiah dalam menentukan kategori. Oleh itu, kajian ini menyediakan platform untuk kajian inkuiri empirikal dan hubungan sebab akibat pada masa hadapan.

Kata kunci: Kepercayaan normatif, kepercayaan injunktif, kepercayaan normatif deskriptif, pemimpin sekolah, analisis faktor penerokaan (EFA)

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INTRODUCTION

The study of school leaders in a pandemic crisis is something new because it is still too early to understand the response and reaction of the new norm in school conditions in a pandemic situation Covid 19 (Nazeri Mohammad and Arshad Jais 2020). The challenge of the new norm depends on the Covid-19 procedure and protocol.

Having opportunities to choose is a fundamental prerequisite of exerting control. Maximizing the probability of achieving desired outcomes and reducing uncertainty can be done by choosing between the options with different value.

REVIEW OF LITERATURE

21st-century skills include media and technology literacy, productivity, social skills, communication, flexibility and initiative (Nazeri Mohammad, Ruhizan M. Yasin & Ana 2015). Other skills attained through STEM education include problem solving, critical thinking, creativity, curiosity, decision making, leadership, entrepreneurship, acceptance of failure and more.

A review of literature in school improvement and instructional leadership yielded a short but specific list of values and beliefs that influence school culture and promote “powerful and equitable” learning. Many principals work to engage parents and others outside the immediate school community, such as local business people.

METHODS

This study used the cross-sectional survey method which determines the sampling strategy and the method of data collection techniques as well as validation processes in light of factor analytical approach (Reise et al., 2000). The amount of 151 samples were taken from school leaders in Malaysia.

MEASURE

The development of indicators or items was intended to capture the manifestation of control belief as reflected by the selected indicators within each factor. The dimensions and proposed factors were represented by several potential indicators or items which have been backed by previous studies instead of self-developed to ensure over inclusiveness in the initial item pool.

Samples

The factor analytical approach determines the theoretical characteristics and the amount of the samples needed. In general, Reise et al. (2000) argues that this procedure favours the heterogeneity of samples which enabled to accurately estimation of the population item inter-correlations.

Exploratory Factor Analysis (EFA)

An exploratory factor analysis (EFA) was used to examine the data for the development of the Control Belief Instruments. First, frequencies were calculated on each item. Analysis revealed that no homogenous scores (all high scores or all low scores) were identified, so no participant data needed to be dropped for that reason.

In this study, the EFA procedure employed the principal axis factoring for the factor extraction and oblique rotation of Promax. Oblique rotation was used to extract psychological latent factors that are theoretically correlated among each other. The extracted loading was set to 0.50 for a simple interpretability of the factors for the purpose of item selection.

RESULTS AND DISCUSSION

Normality, Item Analysis and Communalities

Normality is described by a symmetrical bell shaped curve that has the greatest frequency of scores in the middle, with smaller frequencies towards the extremes (Pallant, 2007). In this study, after the normality tests were conducted, no extreme outliers were found in the findings, all fell within the acceptable range. The normality tests are supplementary to the graphical assessment of normality.

Table 1: Factors extracted with the Factor Loading and Cronbach's Alpha for each item

Extracted Factor	Item Code	Factor Loading	Alpha
Power of Control	CBC30	.921	0.974
	CBC31	.912	
Control Belief Strength	CBP28	.910	0.978
	CBP25	.843	
Overall Reliability of Control Belief			0.976

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 3 iterations.

Exploratory Factor Analysis

A few series of EFA were conducted accordingly. The application of oblique rotation via Promax normalized rotation could give the early sign whether the respective data have the multicollinearity issue (Pallant, 2010). The correlation matrix among factors from the final factor solution would serve this purpose (Reise, Waller & Comrey, 2000).

Table 2: Total variance explained by 8 variable factors

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.410	80.122	80.122	6.410	80.122	80.122	3.767	47.084	47.084
2	1.065	13.315	93.437	1.065	13.315	93.437	3.708	46.353	93.437
3	.142	1.781	95.218						
4	.106	1.325	96.543						
5	.098	1.230	97.773						
6	.083	1.036	98.809						
7	.062	.778	99.587						
8	.033	.413	100.000						

Extraction Method: Principal Component Analysis.

As a normal practice, the theoretical assertion would determine the number factor to be retained. In this study, the researcher strived to retain as many factors as possible to maintain the comprehensiveness of control belief (Fishbein & Ajzen, 1975). The results of the above analysis led to the establishment of the final model as represented in Figure 1.

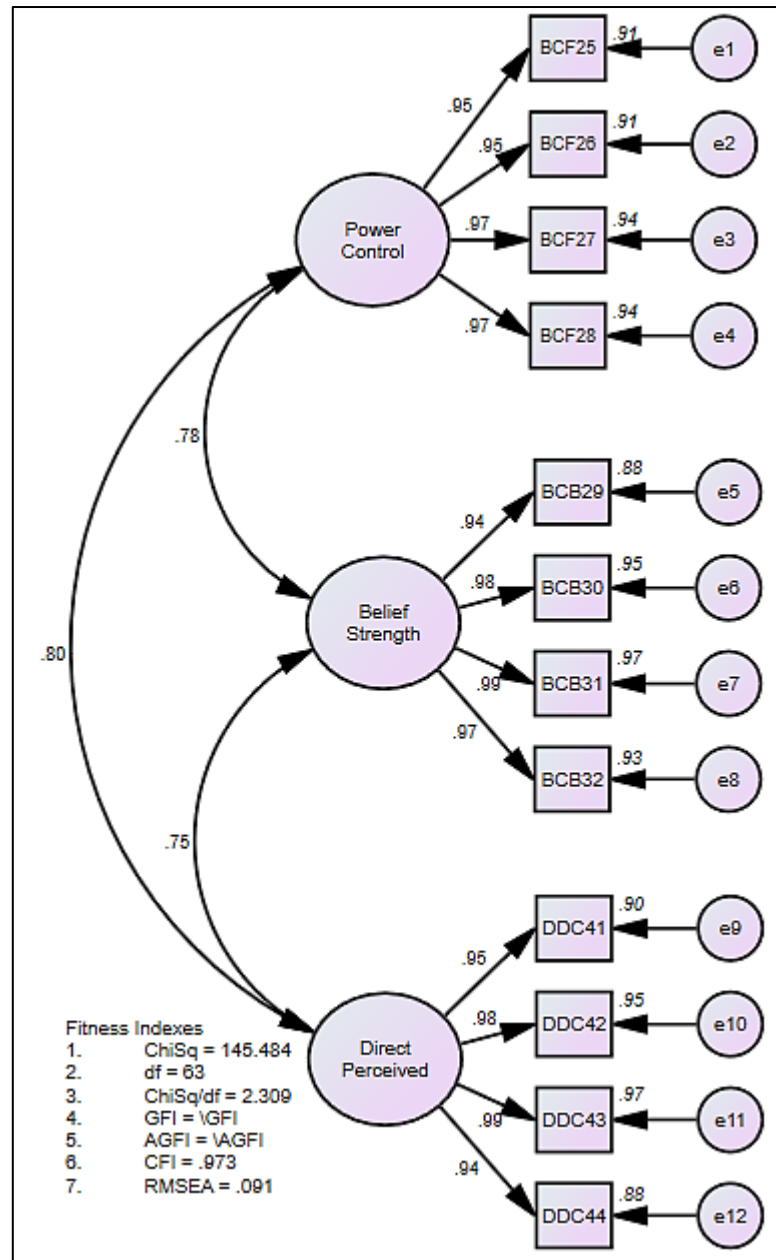


Figure 1: The final model of control belief

CONCLUSION

Every dimension and factor would deliver a new understanding on the theory of Behavioural Belief for school leaders (Ajzen, 1991; Albarracin, Johnson, Fishbein & Muellerleile, 2001). Most importantly, this instrument could be applied in empirical inquiry and causal relationship studies in various fields in the future.

The goals of educational improvement will be very easy to achieve with effective leaders (Muhammad Sidek Said & Arfah Ahamad. 2017). In reality, the standards and goals that we have set for ourselves should be given great attention. The leadership of school principals and

their relationship with the student improvement have be proven vital importance by the empirical evidences and researches.

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