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Evaluating the Kenny Music Performance Anxiety Inventory (K-MPAI) on Tertiary Students' in Malaysia

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Abstract

This study evaluates the level of music performance anxiety (MPA) using the Kenny Music Performance Anxiety Inventory (K-MPAI). Participants are tertiary students from Malaysian universities (Universiti Teknologi MARA UiTM, Universiti Pendidikan Sultan Idris UPSI and ASWARA). The objective of the study was to measure the level of MPA by Kenny Music Performance Anxiety Inventory (K-MPAI). The survey was distributed to 316 randomly selected respondents representing semester one to semester five (UiTM), semester one to semester six (UPSI) and semester one to semester seven (ASWARA) participants. The data were analysed using SPSS version 22 software to obtain frequencies and percentages. The KMPAI (Cronbach's a .882) was reliable and valid for this sample. Normality test, reliability test and frequencies for demographic was demonstrated by significant positive effect to measure the level of MPA. These results support the use of this instrument as a screening tool for MPA in young musicians.

Keywords: music performance anxiety, tertiary students, music achievement, music performance anxiety inventory

Introduction

Anxiety cannot be separated from the human and it is a common emotion in life. Research has revealed, a review of relevant research suggests that musical performance anxiety is a critical problem for 15% to 25% of professional musicians (Steptoe, 2001). Although most may consider anxiety to be problematic for professional musicians only, anxiety and its many manifestations have been known to affect musicians at all levels, whether professional, amateur, or student (Kokotsaki & Davidson, 2003; LeBlanc, Jin, Obert, & Siivola, 1997; Rae & McCambridge, 2004; Ryan, 2005).

Musicians, frequently required to perform under an array of stressful conditions, are particularly susceptible to anxious thoughts and feelings. Although a little tension before a musical event is natural and may actually enhance the experience (Kokotsaki & Davidson, 2003), excessive nervousness acts mostly as a detriment to performance. For many musicians, the task of performing in front of an audience can lead to a wide range of physiological, psychological, emotional, and/or behavioral problems (Ely, 1991). Meanwhile, experiences of performance anxiety do not appear to be limited by musical discipline or genre. Hamann (1982) claims that both instrumentalists and vocalists are equally affected by enhanced anxiety conditions. And, other researchers have discovered comparable perceptions of music performance anxiety among classical, popular, and jazz musicians (Papageorgi,

Creech, & Welch, 2011). Therefore, "understanding the components of performance anxiety and learning how to overcome [its] effects are important steps toward improving musical performances" (Ely, 1991, p. 35). For many musicians, however, the anxiety experienced during performance is debilitating. Severe or debilitating performance anxiety is a distressing aspect of the lives of many musicians, often greatly reducing the enjoyment experienced when performing in front of others (Steptoe, 1989). Unless the musician finds a way to cope effectively with debilitating performance anxiety, the anxiety can interfere with performance potential (Green & Gallwey. 1986). In more severe situations, the discomfort resulting from anxiety may cause an otherwise successful musician to quit performing altogether.

The incidence of music performance anxiety is significantly prevalent. When surveying the personnel of forty-eight professional orchestras from around the United States, Lockwood (1989) reported that thirty-seven percent of the musicians admitted to suffering from frequent or acute anxiety. Likewise, Van Kemanade, Van Son, and Van Heesch (1995) found that fifty-nine percent of Dutch orchestra performers also experienced some level of anxiety. Considering the types of high-pressure situations professional musicians face, such as live recording sessions, televised concerts, and various performances with little rehearsal or preparation, these statistics are not surprising. Hence, the topic of performance anxiety has become increasingly relevant to the field of music education. Research has consistently shown that the factors associated with music performance anxiety can have a direct influence on the quality of musical performances (Hamann, 1982; LeBlanc et al., 1997; Kubzansky & Stewart, 1999). Moreover, Craske and Craig (1984) identified various behavioral, emotional, physiological, and psychological responses as consequences of an enhanced anxiety situation. Among these responses are heightened symptoms of arousal, increased thoughts of worry, and a lack of self-efficacy. Because performance anxiety affects students both personally and musically, it is certainly deserving of attention within music teaching and learning processes.

Literature Review

When reading about music performance anxiety (MPA), it is observed that some authors utilize the terms stage fright (Bippus & Daly, 1999; Nagel, 1993; Fredrikson & Gunnarsson, 1992; Rappoport, 1989; Steptoe & Fidler, 1987), stress (Sternbach & Woody, 2008; Wills & Cooper, 1987), arousal (Kesselring, 2006; Osborne & Kenny, 2005) or fear (Baker, 2005) as synonymous with music performance anxiety (MPA). A few researchers also rely on the more general term anxiety to describe MPA in a broader perspective (Lin, Chang, Zemon & Midlarsky, 2008; Gill, Murphy & Rickard, 2006; Miller & Chesky; 2004; Kubzansky & Stewart, 1999). Often, the term performance anxiety is used interchangeably with MPA when it assesses the phenomenon among musicians (Khalsa, Shorter, Cope, Wyshak & Sklar, 2009; Emmons & Thomas; 2008; Kirchner, Bloom & Skutnick-Henley, 2008; Stephenson & Quarrier; 2005; Lazarus & Abramovitz, 2004; Nagel, 2004; Powell, 2004; Rae & McCambridge, 2004). As reported by Kenny (2006), ―performance anxiety is the general term for a group of disorders that affect individuals in a range of endeavours, from test-taking, mathematics performance, public speaking and sport, to the performing arts of dance, acting and music (p. 52). In accordance with Kenny (2006), Nagel (1990) describes performance anxiety as a ―constellation of attitudes, traits and unconscious conflicts that become activated in particular circumstances such as anticipating or giving a concert (p. 38). Therefore, MPA is a type of performance anxiety specific to music.

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Meanwhile, according to Osborne & Kenny, 2005, music performance anxiety (MPA) is a condition in which a performer's response to stress goes beyond the normal arousal state, resulting in detrimental consequences. Further, Kenny (2009) defines music performance anxiety as the experience of marked and persistent anxious apprehension related to musical performance that has arisen through specific anxiety conditioning experiences and which is manifested through combinations of affective, cognitive, somatic and behavioural symptoms. It may occur in a range of performance settings, but is usually more severe in settings involving high ego investment and evaluative threat. It may be focal (i.e. focused only on music performance), or occur comorbidly with other anxiety disorders, in particular social phobia. It affects musicians across the lifespan and is at least partially independent of years of training, practice and level of musical accomplishment. It may or may not impair the quality of the musical performance. (p.433).

Further, based on Taborsky (2007), performance anxiety is a condition whose symptoms includes sweating palms, shaking hands, cottonmouth, inability to concentrate, and increased heart rate. A moderate level of physiological arousal can enhance the quality of a performance, but this type of arousal often leads to catastrophic thinking and self-doubt, which are characteristics of performance anxiety. For example, a female singer may experience performance anxiety because she fears that her voice will crack and worries that a poor performance will prevent her from being recruited by talent scouts who are in the audience. After a few minutes of reflecting over these negative thoughts, she begins to experience heart trembles, tightness in her chest, and tremors in her voice. She now believes that her fears will be realized because she thinks that her symptoms of anxiety will prevent her from giving a high quality performance.

Music performance anxiety is considered closely related to a trait (Kenny, 2011). Anxiety often emerges after stressful experiences. Sometimes it is adaptive, preparing the individual for the future performances. However, other times the anxiety is maladaptive if it is prolonged or exaggerated over time, possibly leading to anxiety disorders or related illnesses. The problems of performance anxiety and stage-fright are perennial concerns for musicians and other performing artists. Research has shown, a review of relevant research suggests that musical performance anxiety is a critical problem for 15% to 25% of professional musicians (Steptoe, 2001). Research has also indicated musicians that facing with the performance anxiety tendencies to have an experience such as physiological arousal, subjective feelings of discomfort, and overt behaviours (Kenny, 2006). Moreover, western literature on debilitating performance anxiety is proven by associated with the factors similar to those evidenced in social phobia, such as lack of control, the reactions of important others, fear of negative evaluation, judgmental attitudes (Lehrer, 1987), social situations, fear of crowds and catastrophizing (Steptoe & Fidler, 1987).

To date, the most common definition of MPA comes from Salmon (1990), and it states that MPA is ―the experience of persisting, distressful apprehension about and/or actual impairment of performance skills in a public context to a degree unwarranted given the individual‘s musical aptitude, training, and level of preparation (p. 3). This definition is used by a number of authors (Thurber, Bodenhamer-Davis, Johnson, Chesky & Chandler, 2010; Kirchner et al., 2008; Gill, Murphy & Rickard, 2006; Liston, Frost & Mohr, 2003; Reitman, 2001; Widmer, Conway, Cohen & Davies, 1997) in the literature about MPA. However, there are some conceptual issues with this definition, as MPA does not occur only if there is an inconsistency between a) apprehension and b) musical aptitude, training

and level of preparation. In fact, age and levels of aptitude, training, experience and preparation were shown to not have an impact on levels of MPA (Brotons, 1994; Cox & Kenardy, 1993; Wesner et al., 1990; Wolfe, 1989).

Kenny's definition distinguishes music performance anxiety from social phobia, and this distinction is supported by research (Fogle, 1982; Osborne & Franklin, 2002; Steptoe & Fidler, 1987). Those with music performance anxiety are more likely to fear their own negative evaluation in comparison to that of others and persevere with the feared performance situation irrespective of their anxiety (Kenny; 2011; Powell, 2004). The experience on the musical performance anxiety may reflect a stressful situation that is perceived as threatening in some way. "The world's a stage, and every man plays his part" – but for some, centre stage is a threatening and frightening place, and playing one's part is made difficult by the experience of unwanted emotions, thoughts and behaviours. Like Antonio, in Shakespeare's "Merchant of Venice," one's part may be sad and unrewarding (Kenny, 2006). Musical performance anxiety is a vital component to the performers. As Caruso (1964) says, "Of course I'm nervous. The artist who boasts he is never nervous is not an artist - he is a liar or a fool". It is a highly effortful activity which will contribute the musicians to increasingly improve their skills and techniques. In order to develop and sustain expertise in performance musicians need to be physically, emotionally and mentally fit (Papageorgi & Kopiez, in press). The performers should always be ready with a given time of the preparation to assure the quality of the performance is extremely outstanding and recognized from the listeners. The impact of the performance anxiety is a major concern for the musicians on the quality of the performance. A number of common factors have been implicated in both the experience of music performance anxiety and expert ratings of musical performance in studies that have simultaneously addressed both music performance anxiety and performance quality (Craske & Craig, 1984; Kirchner, 2002; LeBlanc, Jin, Obert, & Siivola, 1997; Lederman, 1999). These include level of accomplishment as a musician (Kokotsaki, 2006), technical mastery of one's instrument, the difficulty of the work to be performed (Horvath, Herleman, & McKie, 2006); the amount and quality of practice undertaken (Jabusch, Alpers, Kopiez, Vauth, & Altenmuller, 2009; Repp, 2005), psychological factors, such as trait anxiety, situational anxiety, and fear of negative evaluation (Kenny, 2009; Reiss, 1991) and physiological measures such as muscle tension (Steptoe, 1983) and heart rate (HR) (Abel & Larkin, 1990).

Methodology

This study is approved by the Human Ethics and Research of the Universiti Putra Malaysia. The following research designs are:

Population and Location of the Study

Participants are from Universiti Teknologi MARA UiTM Shah Alam, Selangor (120 students) and Universiti Pendidikan Sultan Idris UPSI Tanjung Malim, Perak (93 students) and ASWARA, Kuala Lumpur (103 students) at age range from 18 to 22 years old. They participated in principal music classes for 30 min a day and had a formal assessment three to four times within the study term. Based on Steptoe & Fidler (1987) says that specific targeted group of preferred university music students level ranges of from 18 – 22 years of age are an important population to investigate because they are reported to suffer from high levels of music performance anxiety, and are at a stage in their training critical for the development of skills and future careers (Brugues, 2011; Miller & Chesky, 2004). All participants have their main instrument during their course of study. Main instruments include piano, vocal, modern/classical guitar, strings, woodwinds, brass and percussion. Participants are actively involved in their university performances (e.g., orchestra, choir, ensemble, in-class graded performance). Participants are pursuing various majors: performance, music education, music composition, and music business.

Sampling Procedure

Demographic Survey: A demographic questionnaire will be used and all participants are compulsory to fill-up the test given. It will be asked participants to report age, gender, main instrument, program of study, year in program and years playing the instrument. In addition, participants is asked to describe their most recent performance, to rate how typical anxiety experienced they perceived in the performance to be on a scale from one to five, and to rate how challenging they perceived this performance to be on a scale from one to five.

Kenny Music Performance Anxiety Inventory (K-MPAI): This inventory (Kenny, 2011) was developed to assess the emotion-based theory of anxiety proposed by Barlow (2000) as it applies to anxiety in the context of music performance. Items were either specially constructed or selected from other scales to address each of Barlow's theoretical components, including evocation of anxious propositions (e.g., uncontrollability, unpredictability, negative affect, situational cues); attentional shift (e.g., task or self-evaluative focus, fear of negative evaluation); and physiological arousal. In addition, two memory items were added because of the importance of performing from memory in major solo performances. Questions are answered on a 7-point Likert scale ranging from 0 (strongly disagree) to 6 (strongly agree). Higher scores indicate greater anxiety and psychological distress. The internal reliability of the scale has been assessed on three samples—opera chorus artists (Kenny et al., 2004); tertiary level music and dance students (Kenny, Ackermann, & Driscoll, 2009); and professional orchestral musicians (Kenny, 2011)—all demonstrating excellent internal reliability > 0.90.

The basis of this research will be the music performance anxiety inventory which a specific tool based on Barlow's (2000) model and designed to measure performance anxiety in musicians and adolescents. The Barlow's model features three factors or vulnerabilities capable of generating anxiety, there are:

1. Generalized biological vulnerability such biological factors can influence the development of anxiety disorders and negative affect.
2. Generalized psychological vulnerability is based on early experiences and the sensation that certain events are uncontrollable-early on in life and under certain conditions, adverse experiences can lead to a greater degree of psychological vulnerability, to the point where some adults may even experience anxiety and negative affect as pervasive condition
3. Barlow's model proposes a more specific psychological vulnerability - the experience of anxiety can be determined by specific environmental stimuli and reinforced through different types of learning (i.e., conditioned or vicarious). This last type of vulnerability is a necessary condition for anxiety to appear, accompanied by the other two which are present in the origins of particular anxiety disorders such as specific phobias or social phobia (Barlow, 2000; Kenny et al., 2004; Kenny & Osborne, 2006).

A meeting will be set to hand over the survey questions that consist of research instruments and participants will take approximately 40 to 50 minutes to answer all questions. The administration of the survey questionnaires will be done by the researcher, whereby subjects will be guided through the questionnaire, item by item. Assistance by the music teacher will be most welcomed.

Data Analysis and Findings

As supported from Kenny (2005), descriptive statistics will be used to help generate means (averages), standard deviation, range to indicate the patterns and trends in data as measured by using Kenny Music Performance Anxiety Inventory (K-MPAI). In this study, normality test, reliability test and frequencies for demographic are also measured to determine the level of MPA on tertiary students.

Frequencies of demographic on UiTM overall results of respondents profiling are shown in Table 1 below. Majority students in UiTM started learning musical instruments at 17-20 years old (95.8%) and had been experiencing their main instrument in two and a half year diploma study. Average fourty six percent of students responded in semester 2. Male students from UiTM reported higher (55%) than

female students (44.2%) and they are from semester 1 to semester 5 respectively. Based on the frequencies demographic, all of the students are from Diploma program (100%).

Table 1: Frequencies of Demographic on UiTM Overall Results of Respondents Profiling

Respondents' Profile	Frequency	Percent (%)	Valid Percent (%)
Sex			
Male	66	55.0	55.5
Female	53	44.2	44.5
Total	119	99.2	100.0
Missing	1	.8	
Total	120	100.0	
Age			
17 - 20 years old	115	95.8	95.8
21 – 24 years old	5	4.2	4.2
Total	120	100.0	100.0
Month/years playing the instrument			
4 months - 12 months	36	30.0	30.8
13 months - 24 months	14	11.7	12.0
25 months - 36 months	11	9.2	9.4
31 months and above	56	46.7	47.9
Total	117	97.5	100.0
Missing	3	2.5	
Total	120	100.0	
Semester/year in program			
Semester 1	41	34.2	34.2
Semester 2	56	46.7	46.7
Semester 3	16	13.3	13.3
Semester 4	4	3.3	3..3
Semester 5	3	2.5	2.5
Total	120	100.0	100.0

Based on frequencies of demographic on UPSI overall results of respondents profiling in Table 2, male and female are balanced with 50% respondants and they are from semester one to semester six. Students in UPSI started learning musical instruments at 17-20 years old (45.2%) and had been experiencing their main instrument in three years diploma study. Based on the frequencies demographic, majority of the students are from Diploma program.

Table 2: UPSI Overall Results of Respondents Profiling

Respondents' Profile	Frequency	Percent (%)	Valid Percent (%)
Sex			
Male	47	50.5	50.5
Female	46	49.5	49.5
Total	93	100.0	100.0

Age			
17 - 20 years old	42	45.2	45.2
21 – 24 years old	42	45.2	45.2
25 – 28 years old	8	8.6	8.6
29 – 32 years old	1	1.1	1.1
Total	93	100.0	100.0
Month/years playing the instrument			
4 months - 12 months	21	22.6	25.3
13 months - 24 months	8	8.6	9.6
25 months - 36 months	10	10.8	12.0
31 months and above	44	47.3	53.0
Total	83	89.2	100.0
Missing	10	10.8	
Total	93	100.0	
Semester/year in program			
Semester 1	7	7.5	8.3
Semester 2	50	53.8	59.5
Semester 3	10	10.8	11.9
Semester 4	12	12.9	14.3
Semester 5	4	4.3	4.8
Semester 6	1	1.1	1.2
Total	84	90.3	100.0
Missing	9	9.7	
Total	93	100.0	

Frequencies of demographic on ASWARA overall results of respondents profiling in Table 3, female is reported higher than male with 56.3% respondants and they are from semester one to semester six. Majority students in ASWARA started learning musical instruments at 17-20 years old (91.3%) and had been experiencing their main instrument in three years of their study. Based on the frequencies demographic, majority of the students are also from Diploma program.

Table 3: ASWARA Overall Result of Respondents Profiling

Respondents' Profile	Frequency	Percent (%)	Valid Percent (%)
Sex			
Male	40	38.8	40.8
Female	58	56.3	59.2
Total	98	95.1	100.0
Missing	5	4.9	
Total	103	100.0	
Age			
17 - 20 years old	94	91.3	94.0
21 – 24 years old	6	5.8	6.0
Total	100	97.1	100.0
Missing	3	2.9	
Total	103	100.0	
Month/years playing the instrument			
4 months - 12 months	25	24.3	27.2
13 months - 24 months	32	31.1	34.8

25 months - 36 months	8	7.8	8.7
31 months and above	27	26.2	29.3
Total	92	89.3	100.0
Missing	11	10.7	
Total	103	100.0	
Semester/year in program			
Semester 1	1	1.0	1.0
Semester 2	3	2.9	3.0
Semester 3	55	53.4	55.6
Semester 5	2	1.9	2.0
Semester 6	37	35.9	37.4
Semester 7	1	1.0	1.0
Total	99	96.1	100.0
Missing	4	3.9	
Total	103	100.0	

Descriptive statistics for all measured used in the study taken from the data are presented in Table 4. The distribution of K-MPAI scores was normal. Mean scores (with standard deviation) and normal Q-Q plot, histogram is presented of MPA respectively.

Table 4: Descriptive Statistics of K-MPAI from UiTM, UPSI and Aswara

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
MUSIC PERFORMANCE ANXIETY (MPA)	316	100.0%	0	0.0%	316	100.0%

Descriptives

			Statistic	Std. Error
MUSIC PERFORMANCE ANXIETY (MPA)	Mean		3.1983	.03414
	95% Confidence Interval for Mean	Lower Bound	3.1312	
		Upper Bound	3.2655	
	5% Trimmed Mean		3.1930	
	Median		3.1500	
	Variance		.368	
	Std. Deviation		.60686	
	Minimum		1.08	
	Maximum		5.28	
	Range		4.20	
	Interquartile Range		.63	

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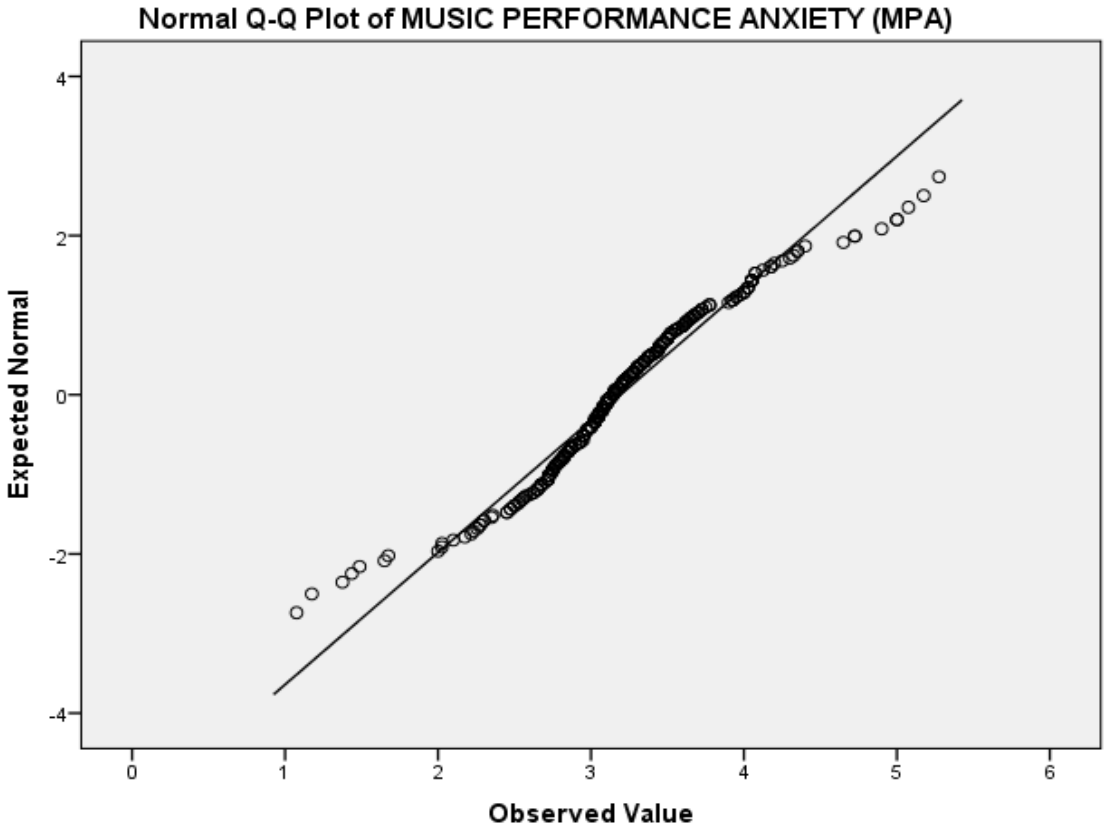
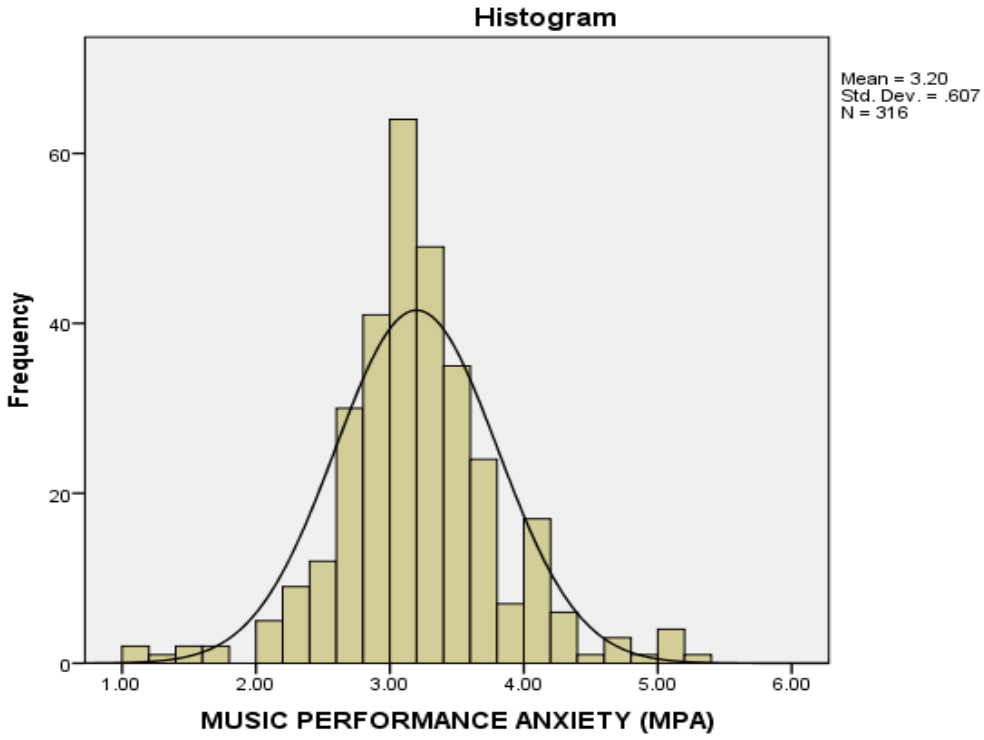
The composite mean score for the Kenny Music Performance Anxiety Inventory (K-MPAI) was M = 3.198, SD = .60686, with a range of 4.20. The K-MPAI was used as the dependent variable in several of the analyses. A histogram of distributed and normal Q-Q plot of K-MPAI scores was viewed to determine normal distribution. Scores appeared to be normally distributed.





In table 5, cronbach's alpha was used to determine internal consistency which 316 students completed the surveys. Cronbach's Alpha is designed as a measure of internal consistency. The results demonstrated that the K-MPAI is a psychometrically robust measure, with very good internal consistency and realibility (Cronbach alpha =.882) for this students group. Based on the result, the no.of fourty (40) items of K-MPAI are valid and reliable which could be utilized to measure MPA on tertiary students.

Table 5: Realibility Test of MPA

Case Processing Summary

		N	%
Cases	Valid	255	80.7
	Excluded[a]	61	19.3
	Total	316	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.882	40

Conclusions

Based on the results, the K-MPAI has provided us with a measure featuring good psychometrically good measure that makes it valid and reliable instrument for the measurement of MPA on music tertiary students in Malaysia. The analysis of the K-MPAI with the fourty items from the UiTM, UPSI and Aswara shows that this measure is an internally consistent and reliable tool for measuring the level of MPA. To determine the internal reliability test of K-MPAI, Cronbach's alpha also was highly recommended. This study has prolonged our knowledge of MPA in an academic context and may provides support for the use of the K-MPAI as a screening tool in future studies and could be contribute to a better knowledge to assess the level of MPA on tertiary students. Not merely that, these instruments can potentially help music teachers by providing a basis for preventive action and by supporting them to control overall levels of MPA specifically.

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