# PENGGUNAAN TEKNIK BIO MAKLUMBALAS BAGI MENGUKUR CIRI-CIRI DISIPLIN DAN TANGGUNGJAWAB DALAM KALANGAN MAHASISWA

SHAHIDAH BINTI HAMZAH

TESIS YANG DIKEMUKAKAN UNTUK MEMENUHI SYARAT MEMPEROLEH IJAZAH DOKTOR FALSAFAH (TEKNOLOGI KEMANUSIAAN)



PUSAT BAHASA MODEN & SAINS KEMANUSIAAN

UNIVERSITI MALAYSIA PAHANG

SEPTEMBER 2016

Khas buat sumber kekuatanku

Abah (Hamzah bin Kammu), Emak (Aishah binti Hj Mohammed), Suami (Abdul Latif bin Jailani) dan Permata Hati (Azfar bin Abdul Latif)

## PENGHARGAAN

Terlebih dahulu saya bersyukur kepada Allah SWT, dengan rahmat dan kurniaanNya, tesis bertajuk Penggunaan Teknik Bio Maklumbalas bagi Mengukur Ciri-Ciri Disiplin dan Tanggungjawab dalam Kalangan Mahasiswa telah dapat saya selesaikan dengan jayanya.

Ucapan terima kasih saya tujukan khas buat penyelia Prof Madya Dr Muhammad Nubli bin Abdul Wahab, yang telah memberi motivasi dan bimbingan sehingga tesis ini dapat diselesaikan. Idea-idea dan segala nasihat beliau amat berguna kepada saya bukan sahaja dalam proses menyediakan tesis malahan pada masa akan datang.

Saya juga ingin mengucapkan ribuan terima kasih kepada semua yang telibat di dalam menyumbangkan data-data yang berguna serta menjadi peserta bagi menjayakan tesis ini. Selain itu, ribuan terima kasih diucapkan kepada staf-staf Pusat Pengajian Siswazah dan Pusat Bahasa Moden dan Sains Kemanusiaan yang banyak membantu dalam pengajian saya di Universiti Malaysia Pahang. Jasa kalian hanya Allah yang mampu membalasnya.

Terima kasih juga saya ucapakan kepada kedua ibu bapa dan keluarga yang sentiasa memberikan sokongan moral kepada saya dan sentiasa membantu dalam segala aspek. Kesempatan ini saya merakamkan setinggi penghargaan kepada suami tercinta dan anak tersayang yang sentiasa menjadi tulang belakang bagi menjayakan kajian ini.

Saya berharap mudah-mudahan tesis ini dapat memberikan manfaat kepada semua dan dapat dijadikan rujukan bagi generasi akan datang.

# ABSTRAK

Kemerosotan nilai integriti dalam sesebuah negara boleh memberikan implikasi yang negatif kepada sosio ekonomi, budaya dan politik. Berdasarkan Pelan Integriti Nasional (2006), integriti adalah kualiti unggul yang wujud secara keseluruhan dan padu pada individu dan organisasi. Penyelidikan tentang integriti kebanyakannya menjurus kepada ujian psikometrik dan impak sosial namun begitu permasalahan integriti ini masih berlarutan sehingga kini (Mikulay dan Goffin, 1998). Kajian ini menggunakan teknik bio maklumbalas bagi mengukur elemen integriti dalam diri individu. Tujuan kajian ini ialah mengukur sub elemen integriti menggunakan teknik bio maklumbalas manakala objektif khusus kajian ini ialah meneroka profil integriti mahasiswa, membangunkan protokol bio maklumbalas, mengukur profil kadar kebolehubahan jantung (HRV) dan kitaran pernafasan dengan integriti serta menentukan hubungan antara HRV dan kitaran pernafasan dengan elemen integriti. Terdapat dua kaedah yang digunakan iaitu, kaedah kuantitatif dan kaedah klinikal. Subjek kajian bagi kaedah kuantitatif meliputi 148 orang responden yang dipilih melalui kaedah rawak sistematik manakala subjek kajian bagi kaedah klinikal meliputi 50 orang responden yang dibahagikan kepada dua kumpulan iaitu kumpulan A dan kumpulan B berdasarkan pencapaian akademik. Para peserta telah diuji menggunakan protokol bio maklumbalas yang dibangunkan dimana terdapat lapan sesi kajian yang perlu dilalui oleh setiap peserta. Dapatan kajian kuantitatif menunjukkan terdapat perhubungan yang signifikan antara pencapaian akademik dengan sub elemen integriti mahasiswa iaitu mahasiswa yang mempunyai pencapaian akademik cemerlang akan mempunyai sifat disiplin dan tanggungjawab yang tinggi dalam diri begitu juga sebaliknya. Dapatan kaedah klinikal pula mendapati responden yang memperoleh skor spektrum kuasa frekuensi rendah (LF) lebih tinggi skor spektrum kuasa frekuensi tinggi (HF) dan skor spektrum kuasa frekuensi sangat rendah (VLF) merupakan individu yang mempunyai pencapaian akademik cemerlang. Kesimpulannya, hasil dapatan kajian ini menunjukkan teknik bio maklumbalas merupakan salah satu kaedah pengukuran integriti yang berkesan dan boleh digunapakai serta boleh menjadi terapi dari aspek penambahbaikan diri sekiranya aktiviti-aktiviti yang meningkatkan nilai disiplin dan tanggungjawab mahasiswa bagi meningkatkan nilai integriti individu.

# ABSTRACT

The impairment of a country's integrity can implicate its socio-economic, cultural and political aspects negatively. Based on the National Integrity Plan (2006), integrity is the superior quality that exists as a whole and coherently on individuals and organisations. Research on the integrity is mostly focused on psychometric assessment and social impact. However, the problems of integrity still persist up to this day (Mikulay dan Goffin, 1998). This study used the biofeedback method to measure the integrity of an individual. Throughout this entire research, the biofeedback technology has been used to measure the element of integrity. The aim of this study was to assess the integrity measurement by using the biofeedback method and the specific objectives of this study were to explore the student integrity profiles, to develop biofeedback protocols, to measure the HRV profiles and respiratory cycle with the integrity profiles and to determine the relationship between HRV and respiratory cycle and the element of integrity. There are two methods used, namely, the quantitative methods and clinical methods. The subjects selected consisted of 50 respondents which were divided into two groups, group A and group B, based on their academic achievement. The respondents were assessed by using the biofeedback protocol provided where they had to go through the assessment in eight different sessions. The study carried out showed that there was a significant relationship between individual's achievement and their discipline and self-responsibility in which individuals with high achievement will have high discipline and self-responsibility, vice versa. Via clinical method, it was found that the respondents who received a low-frequency spectrum (LF) higher than high-frequency spectrum (HF) and those with a very low-frequency spectrum (VLF) are individuals who have outstanding achievement as this is directly related to the autonomic nervous system. In conclusion, this study showed that the biofeedback method is one of the effective ways that can be put into practise in the integrity measurement and it is also a method of therapy to improve self-discipline and responsibility with ongoing activities.

**KANDUNGAN**

**BAB 5 RINGKASAN, KESIMPULAN, IMPLIKASI DAN CADANGAN**

## SENARAI JADUAL

## SENARAI RAJAH

## SENARAI GAMBAR

## SENARAI CARTA ALIR

## SENARAI SINGKATAN

| | |
|---|---|
| ANS | Sistem Saraf Autonomik |
| BP | Tekanan Darah |
| bpm | Denyut Per Minit / *Beat Per Minute* |
| BPM | Bernafas Per Minit / *Breath Per Minute* |
| CNS | Sistem Saraf Pusat |
| CPI | Indeks Persepsi Rasuah |
| EEG | Gelombang Otak |
| EKG | Denyutan Jantung |
| EMG | Perubahan Otot |
| GSR | Perubahan Garvanic Kulit |
| HF | Spektrum Kuasa Tinggi / *High Frequency* |
| HR | Dengupan Jantung / *Heart Rate* |
| HRV | Kadar Kebolehubahan Jantung /*Heart Rate Variability* |
| IPT | Institut Pengajian Tinggi |
| LF | Spektrum Kuasa Rendah / *Low Frequency* |
| PIN | Pelan Integriti Nasional |
| PNGK | Purata Nilai Gred Terkumpul |
| PNS | Sistem Saraf Parasimpetetik |
| PPG | Denyutan Nadi |
| RF | Frekuensi Pernafasan |
| RSA | Pernafasan Sinus Aritmia |
| SNS | Sistem Saraf Simpetetik |
| SPRM | Suruhanjaya Pencegah Rasuah Malaysia |

| | |
|---|---|
| SSP | Sistem Saraf Perifer |
| VLF | Spektrum Kuasa Sangat Rendah / *Very Low Frequency* |

# BAB 1

# PENDAHULUAN

## 1.1 PENGENALAN

Kerapuhan nilai integriti dalam masyarakat kini semakin berleluasa. Kehakisan nilai dalam masyarakat yang dicerminkan oleh kakitangan awam dengan wujudnya jenayah kolar putih, gejala sosial, rasuah, diskriminasi dan penyalahgunaan kuasa semakin parah (Mustafar Ali, 2004). Lantaran itu, kerajaan sedar akan kepentingan nilai integriti perlu diterapkan secara holistik dalam kalangan kakitangan awam (Ismail, 2009). Hal ini dikatakan demikian kerana integriti merupakan tunggak utama kemakmuran sesebuah negara.

Menurut Kamus Dewan Edisi Keempat, integriti bermaksud kejujuran, keutuhan dan keadaan sempurna, manakala menurut Kamus Oxford, integriti ialah *wholeness, soundness, uprightnest* dan *honesty*. Secara amnya, integriti boleh ditakrifkan sebagai kejujuran dan ketelusan daripada sebarang bentuk penyelewengan. Menurut Mumtaz Begam et al. (2009), seseorang yang mempunyai nilai integriti dalam dirinya akan

menunaikan janji atas apa yang dipersetujui oleh pihak-pihak tertentu. Selain itu, integriti merupakan keterampilan diri dari aspek peribadi, akhlak dan tutur kata.

Menurut Syed Azauddin (2005), integriti bermaksud dedikasi yang diberikan oleh seseorang untuk melakukan kerja yang efisien. Integriti merupakan kualiti yang sangat penting bagi setiap pemimpin Islam. Selain itu, terdapat surah di dalam Al-Quran yang menjelaskan bahawa bagi memilih seseorang pemimpin, kriteria utamanya ialah amanah dan kebijaksanaan. Integriti juga merupakan nilai asas yang mesti dijadikan pegangan. Perkara ini dapat dilihat dalam Surah Yusuf, ayat 54 yang bermaksud "Dan (setelah mendengar pengakuan perempuan-perempuan itu), raja berkata: "bawalah Yusuf kepadaku, aku hendak menjadikan dia orang yang khas untuk aku bermesyuarat dengannya". Setelah (Yusuf dibawa menghadap raja) berkata-kata dengannya (setelah mengetahui kebijaksanaannya) berkatalah raja kepadanya: "sesungguhnya engkau pada hari ini (wahai Yusuf), seorang yang berpangkat tinggi, lagi dipercayai di kalangan kami".

(Surah Yusuf ayat 54)

Integriti adalah kualiti unggul yang wujud secara keseluruhan dan padu pada individu dan organisasi serta berlandaskan etika dalam tindakan seharian (Pelan Integriti Nasional, 2006). Integiti merupakan konsep penting dalam penaakulan etika (Widang & Fridlund, 2004) kerana integriti berkait rapat dengan pembentukan dan pengukuhan etika yang baik. Pada hakikatnya integriti membawa maksud yang luas yang merangkumi setiap aspek kehidupan manusia (Ismail, 2009). Kelemahan integriti akan menyumbang kepada keruntuhan nilai moral dan kerosakan sesuatu profesion pekerjaan (Hardinghan, 2004).

Bagi individu yang memegang amanah, integriti bermaksud melaksanakan amanah dan kuasa yang dipertanggungjawabkan menurut kepentingan umum. Mereka tidak boleh menyalahgunakan kuasa yang diberikan untuk kepentingan diri mahupun keluarga. Apabila berlaku konflik kepentingan mereka harus memberi keutamaan terhadap kepentingan awam. Dengan demikian, penjawat awam perlu telus serta harus memikul tanggungjawab yang diamanahkan (Sulaiman Mahbob, 2005).

Menurut Suruhanjaya Integriti (2013), integriti adalah sifat yang perlu ada pada seseorang untuk membentuk peribadi yang sempurna. Integriti merangkumi aspek keikhlasan, keterbukaan, ketelusan, amanah, benar, berpegang kepada prinsip dan tidak mudah dipengaruhi. Integriti juga adalah satu garis panduan, penanda aras, titik rujukan atau matlamat yang digunakan untuk membuat keputusan yang bergantung kepada ketepatan dan kejujuran.

Berdasarkan definisi-definisi yang telah diberikan oleh sarjana, dapat disimpulkan bahawa integriti merupakan elemen penting dalam membentuk diri seseorang individu. Oleh sebab itu, integriti membawa maksud yang positif dan dapat memacu individu ke arah kebaikan, keunggulan, dihormati dan dikagumi.

Pelbagai usaha telah dilaksanakan untuk membangunkan budaya integriti dalam semua sektor seperti pentadbiran, pengurusan awam dan pendidikan di Malaysia. Dasar, kempen dan slogan telah diperkenalkan untuk mengukuhkan nilai integriti masyarakat di Malaysia antaranya Rukun Negara, Piagam Pelanggan, modul pengurusan integriti dan kepimpinan melalui teladan.

Pelan Integriti Nasional (PIN) telah dilancarkan oleh mantan Perdana Menteri Malaysia ke lima iaitu Datuk Seri Abdullah bin Ahmad Badawi pada 23 April 2004 (Mohd Zahedi Daud, 2006). Pelan tersebut bertujuan untuk membangunkan masyarakat beretika, manakala matlamat jangka masa panjang adalah memenuhi cabaran keempat Wawasan 2020, iaitu membentuk masyarakat yang mempunyai ciri-ciri moral dan etika yang kukuh, mempunyai nilai keagamaan dan kerohanian serta berbudi pekerti yang luhur. Isu integriti bukan hanya tertumpu kepada isu rasuah sahaja malah isu ini merupakan satu konsep yang luas. Integriti turut meliputi ketepatan waktu, menyampaikan maklumat, memberi perkhidmatan terbaik, berhubung dengan ketua, rakan sekerja dan kakitangan sokongan.

Menurut Mustafar (2005), integriti seseorang individu atau organisasi sukar diberikan sesuatu tahap tertentu atau diukur dalam bentuk peratusan. Tahap integriti tidak dapat dinilai berdasarkan jumlah sama ada kecil atau besar dan jumlah masa seseorang itu ponteng kerja atau curi tulang. Selain itu, integriti juga tidak dapat dinilai berdasarkan laporan prestasi pekerja semata-mata. Seseorang pekerja mungkin dapat

menghasilkan produktiviti kerja yang lebih baik tetapi dia berkemungkinan tidak ikhlas dalam pelaksanaan kerjanya, sekiranya tanpa pengawasan dan penyeliaan pegawai atasannya. Namun begitu, menurut Muhamad Shariffuddin (2009), lazimnya pengukuran tahap integriti mudah untuk dilakukan berdasarkan perwatakan dan apa yang dilakukan sama ada bersifat baik dan menyenangkan atau buruk yang menjengkelkan. Tahap integriti yang rendah berlaku kerana kawalan dalaman individu yang bermasalah. Keadaan ini dapat dilihat apabila individu tersebut melakukan perkara-perkara negatif seperti pecah amanah, ponteng kerja dan tidak mematuhi undang-undang dan peraturan serta membuang sampah di jalanan (Mustafar, 2005).

Kemerosotan nilai integriti dalam diri individu akan memberikan implikasi yang negatif terhadap kestabilan sosioekonomi, budaya dan politik dalam sesebuah negara. Kemerosotan nilai ini bukan hanya melibatkan diri individu sahaja malahan memberi kesan yang besar kepada sesebuah organisasi. Indeks Persepsi Rasuah (CPI) merupakan salah satu daripada teknik pengukuran yang diterima pakai pada masa kini bagi mengukur persepsi peniaga dan pelabur tentang tahap rasuah di sesebuah negara, namun begitu, indeks ini hanya dikhususkan kepada isu persepsi tahap rasuah sesebuah negara di mana kedudukan sesebuah negara akan disenaraikan mengikut skor yang diperolehi dan bukannya berdasarkan realiti sebenar tahap rasuah di negara terbabit (Laporan Corruption Perception Index, 2012).



CPI 2010 yang diumumkan pada 26 Oktober 2010 menunjukkan skor Malaysia jatuh 0.1 mata dari 4.5 pada 2008 ke skor 4.4. Dari segi kedudukan, Malaysia kekal di kedudukan ke 56 berbanding 175 negara yang terlibat (Khoo Chai Lee, 2010). Selain itu, hasil kajian yang dikeluarkan oleh Transparency International mendedahkan bahawa terdapat perkaitan yang rapat antara gejala rasuah dengan kemiskinan (Laporan Corruption Perception Index, 2006). Kajian pada tahun 2012 pula mencatatkan Malaysia pada skor CPI 4.9 dan berada dalam kedudukan ke 49 daripada 175 negara. Hal ini menunjukkan pada tahun 2012, berlaku peningkatan dalam indeks CPI berbanding tahun 2010 (Laporan Corruption Perception Index, 2012). Pada tahun 2013, Malaysia berada dalam pada kedudukan ke 50 daripada 175 negara bagi indeks ini dan pada tahun 2014, Malaysia berada dalam kedudukan ke 52 daripada 175 negara (Laporan Corruption Perception Index, 2014). Pada tahun 2015, Malaysia berada dalam kedudukan ke 54 daripada 175 buah negara dengan nilai indeks CPI, iaitu 50 (Laporan

## RUJUKAN


Agelink M.W., Boz C., Ullrich H. dan Andrichc J. (2002). Relationship between Major Deprassion and Heart Rate Variablity. *Clinical Consequences and Implications for Antidepressive Treatment, Psychiatry Research*. **113**: 139-149.

Akselrod S. (1995). *Components of heart rate variability: basic studies*. Malik M. & Camm AJ. N.Y.: Futura Publ.Comp., Inc.

Akselrod, S., Gordon, D., Ubel, F.A., Shannon, D.C., Berger, A.C., dan Cohen, R.J. (1981). Power spectrum analysis of heart rate fluctuation: a quantitative probe of beat-to-beat cardiovascular control. *Science*. **213**: 220-222.

Althaus M., Mulder L. J., Mulder G., Roon A. M., dan Minderaa R. B. (1998). Influence of respiratory activity on the cardiac response pattern to mental effort. *Psychophysiology*. **35**(4): 420-430.

Anderson, J. (2005). *Cognitive Psychology and its Implications*. New York: Worth Publishers.

Anderson, L.W., Krathwohl, D.R., Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R., Raths, J. dan Wittrock, M.C. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

Andreassi, J.L. (2007). *Psychophysiology Human Behaviour and Physiological Response* (5th ed.) New Jersey: Lawrence Erlbaum Associates.

Anon. (2006). Indeks Persepsi Rasuah. Transparency International (atas talian) http://www.transparency.org/country#MYS ( 2 Julai 2013).

Anon. (2012). Indeks Persepsi Rasuah. Transparency International (atas talian) http://www.transparency.org/cpi2012 ( 2 Julai 2013).

Anon. (2013). Biofeedback. University of Maryland Medical Centre (atas talian) http://umm.edu/health/medical/altmed/treatment/biofeedback (2 Jun 2013).

Anon. (2013). Biofeedback: Using your mind to improve your health.Mayo Clinic. (atas talian) http://www.mayoclinic.com/health/biofeedback/MY01072 (30 Mei 2013).

Anon. (2013). Dasar Penerapan Nilai-nilai Islam dalam Pentadbiran (atas talian) http://www.ukm.my/jhadhari/makalah/v4n12012/abstrak%203.pdf (9.10.2013).

Anon. (2013). Hala tuju Sektor Pembangunan Kemanusiaan, Unit Hal Ehwal Murid 2013. Putrajaya: Kementerian Pelajaran Malaysia.

Anon. (2013). Perundangan Agensi Penguatkuasaan. Suruhanjaya Integriti Malaysia. (atas talian) http://www.eaic.gov.my/ (15 Mei 2013).

Antelmi, I., de Paula, R. S., Shinzato, A. R., Peres, C. A., Mansur, A. J., dan Grupi, C. J. (2004). Influence of age, gender, body mass index, and functional capacity on heart rate variability in a cohort of subjects without heart disease. *American Journal of Cardiology*. **93**(3): 381- 385.

Astuti dan Puji, C. (2005). *Pengaruh Bimbingan Belajar Orang Tua Terhadap Tanggung Jawab Belajar Anak Kelas IV SD Pangudi Luhur Don Bosco Semarang Tahun Pelajaran 2003/2004*. Semarang: Universitas Negeri Semarang.

Ahmad, A. (2006). *Strategi Pembelajaran Pengaturan Kendiri Pendidikan Islam dan Penghayatan Akhlak pelajar Sekolah Menengah*. Tesis PhD. Pendidikan Islam. Bangi: Universiti Kebangsaan Malaysia.

Baba, A. (1992). *Statistik untuk penyelidikan dalam pendidikan dan sains sosial*. Bangi: Penerbit Universiti Kebangsaan Malaysia.

Baller, W. R & Charles, D.C. (1986). *The Psychology of Human Growth and Development*. NY: Rein Holt.

Barabasz, A. F., dan Watkins, J. G. (2005). *Hypnotherapeutic techniques*. New York: Brunner-Routledge.

Barro, R.J. (2001). Human capital and growth. American Economic Review, **91**(2): 12-17.

Bassman, L.E., dan Uellendahl, G. (2003). Complementary/alternative medicine: Ethical, professional, and practical challenges for psychologists. *Professional Psychology: Research and Practic*. **34**: 264-270.

Baumert M, Brechtel L, Lock J, Hermsdorf M, Wolff R, Baier V dan Voss A. (2006). Heart Rate Variability, Blood Pressure Variability, and Baroreflex Sensitivity in Overtrained Athletes. *Clinical Journal of Sport Medicine*. **16** (5): 412–417.

Baumgarter, T. A, Jackson, A. S, Mahar, M. T dan Rowe, D. A. (2003). *Measurement for Evaluation in Physical Education & Exercise Science* (7th ed). McGrow-Hill company. New York.

Becker, J. (2003). *The Social Creation of a Social Problem*. Doctoral Dissertation. Washington State University.

Benson. H. dan Stuart, E. M. (1992). *The "Relaxation Response" technique*. NY: Simon & Schuster.

*Berita Harian Online*. (2010). Masalah salah laku disiplin pelajar masih terkawal. 28 Disember 2010.

Bernardi, L. (2001). Interval hypoxic training. *Advancements in Experimental Medical Biology*. **2**: 377–380.

Bernston, G. A., Bigger, J. T., Jr., Eckberg, D. L., Grossman, P., Kaugmann, P. G. dan Malik, M. (1997). Heart rate variability: Origins, methods, and interpretive caveats. *Psychophysiology*.**34**: 623–648.

Berntson, G.G., Cacioppo, J T., Binkley, P.F., Uchino, B.N., Quigley, K.S. dan Fieldstone, A. (1994). Autonomic cardiac control: III. Psychological stress and cardiac response in autonomic space as revealed by pharmacological blockades. *Psychophysiology*. **31**: 599–608.

Berntson, G.G., Cacioppo, J.T. dan Fieldstone, A. (1996). Illusions, arithmetic, and the bidirectional modulation of vagal control of the heart. *Biological Psychology*. **44**: 1–17.

Berntson, G.G., Cacioppo, J.T. dan Quigley, K.S. (1993). Cardiac psychophysiology and autonomic space in humans: empirical perspectives and conceptual implications. Psychological Bulletin. **114**: 296–322.

Billman G. E. (2013). The LF/HF ratio does not accurately measure cardiac sympatho-vagal balance. *Frontiers in physiology*. **4**(26): 1-5.

Billman, G. E. (2011). Heart rate variability - A historical perspective. *Frontiers in*

Blechert, J., Michael, T., Grossman, P., Lajtman, M., dan Wilhelm, F. H. (2007). Autonomic and respiratory characteristics of posttraumatic stress disorder and panic disorder. *Psychosomatic Medicine*. **69**: 935–943.

Blumenstein, B., Bar-Eli, M., dan Tenenbaum, G. (1997). A five-step approach to mental training incorporating biofeedback. *The Sports Psychologist*. **11**: 440-453.

Bogdan, R.C., dan Biklen, S.K. (1998). *Qualitative Research in Education: An Introductory to theory and method*. Boston: Allyn & Bacon.

Bolek, J.E. (2003). A preliminary study of modification of gait in real time using surface electromyography. *Applied Psychophysiology and Biofeedback*. **28**(2): 129-138.

Bolek, J.E. (2006). Use of multiple-site performance-contingent SEMG reward programming in pediatricrehabilitation: A retrospective review. *Applied Psychophysiology and Biofeedback*. **31**(3): 263-272.

Boonnithi, Sansanee, dan Phongsuphap, Sukanya. (2011). Comparison of Heart Rate Variability measures for mental stress detection. *Paper presented at the Computing in Cardiology, 2011*. Hangzhou, China: 18-21 Sept.

Bradley, D., Yani, L.D., Philip, D., dan Vecchio, D. (2011). Cognitive Asessment in Behavioral Sport Psychology. *Behavioral Sport Psychology*. Bryan Turner. 2001. Discipline. *Theory, Culture and Society*. **23**: 183.

Bridges, D. (2006). The Disciplines and the Discipline of Educational Research. *Journal of Philosophy of Education*. **40**(2): 268.

Brosschot, J. F., Van Dijk, E., dan Thayer, J. F. (2007). Daily worry is related to low heart rate variability during waking and the subsequent nocturnal sleep period. *International Journal of Psychophysiology*. **63**(1):39-47. doi: 10.1016/j.ijpsycho.2006.07.016.

Burke, A. (2003). Biofeedback and the CAM consumer. *Biofeedback*. **31**(3): 13-15.

Burn, R.B. (1995). *Introduction to Research Methods*. Melbourne: Longman.

Burrows G.D, Stanley R.O, Bloom P.B. (2001). *International Handbook of Clinical Hypnosis*. United Kingdom: John Wiley & Sons, Ltd.

Cacioppo J. T., Uchino B. N., dan Berntson G. G. (1994). Individual differences in the autonomic origins of heart rate reactivity: The psychometrics of respiratory sinus arrhythmia and preejection period. *Psychophysiology*. **31**(4): 412-419.

Cacioppo, J. T., Larsen, J. T., Smith, N. K., dan Berntson, G. G. (2004). The affect system What lurks below the surface of feelings. NY: Cambridge University Press.

Cacioppo, J.T., Berntson, G.G., Binkley, P.F., Quigley, K.S. Uchino, B.N. dan Fieldstone, A. (1994). Autonomic cardiac control. II. Basal response, noninvasive indices, and autonomic space as revealed by autonomic blockades. *Psychophysiology*. **31**: 586–598.

Cacioppo, J.T., Berntson, G.G., Sheridan, J.F. dan McClintock, M.K. (2000). Multi-level integrative analyses of human behaviour: the complementing nature of social andbiological approaches. *Psychological Bulletin*. **126**: 829–843.

Cacioppo, J.T., Hawkley, L.C. dan Crawford, L.E. (2002). Loneliness and health: potential mechanisms. *Psychosomatic Medicine*. **64**: 407–417.

Cacioppo, John, T., Tassinary dan Louis, G. (1990). *Principles of Psychophysiology: Physical, Social and Ifferential Elements*. Cambridge. Cambridge University Press.

Cahill L., dan Alkire M. T. (2003). Epinephrine enhancement of human memory consolidation: Interaction with arousal at encoding. *Neurobiology of learning and memory*. **79** (2): 194-198.

Cannon, W. B. (1929). *Bodily changes in pain, hunger, fear, and rage*. (Second ed.). New York: D. Appleton.

Cannon, W.B. (1929). Organization for physiological homeostasis. *Physiological Reviews*. **9**: 399–431.

Casolo G., Balli E., Taddei T., Amuhasi J., dan Gori C. (1989). Decreased Spontaneous Heart Rate Variability in Congestive Heart Failure. *The American Journal of Cardiology*. **64**: 1162-1167.

Cattell J. M. (1886). The time it takes to see and name objects. *Mind*. **11**: 53–65.

Cerutti S, Bianchi AM dan Mainardi LT. (1995). *Spectral analysis of the heart ratevaribility signal*. Malik M, Camm AJ. N.Y.: Futura Publ. Comp., Inc.

Chandra D., Yeates D., dan Wong L. (2003). Heart Rate Variability Analysis- Current and Future Trends. *Business Briefing: Global Healthcare*. 1-5.

Charmandari, E., Tsigos, C. dan Chrousos, G. (2005). Endocrinology of the Stress Response. Annual Reviews of *Physiology*. **67**: 259–284.

Childre, D., dan McCraty, R. (2001). Psychophysiological correlates of spiritual experience. *Biofeedback*. **31**: 16–17.

Cohen J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). NY: Academic Press.

Cohen H., Benjamin J, Geva A.B., Matar M.A., Kaplan Z. dan Kotler M. (2000). Autonomic Dysregulation in Panic Disorder and Post-Traumatic Stress Disorder: Application of PowerSpectrum Analysis of Heart Rate Variability at Rest and in Response to Recollection of Trauma or Panic Attactks. *Psychiatry Research*. **96**: 1-13.

Cohen, S., & Williamson, G. 1998. *Perceived Stress in a Probability Sample of the United States*. The Social Psychology of Health. Newbury Park, CA: Sage.

Collins, A. dan Frankenhaenser, M. (1978). Stress responses in male and female engineering students. *Human Stress*. **4**(2): 43-48.

Coumel P, Maison-Blanche P dan Catuli D. (1995). *Heart rate and heart rate variability*. Malik M & Camm AJ, N.Y: Futura Publ. Comp., Inc.

Craig, A. dan Cooper, R. E. (1992). *Symptoms of Acute and Chronic Fatique*. Handbook of Human Performance. London: Academic Press.

Critchley, H. D., Mathias, C. J., Josephs, O., O"Doherty, J., Zanini, S., Dewar, B.-K., Cipolotti, L., Shallice, T., dan Dolan, R. J. (2003). *Human cingulate cortex and autonomic control: converging neuroimaging and clinical evidence*. Oxford University Press.

Cropley, M., Dijk, D-J dan Stanley, N. (2006). Job strain, work rumination, and sleep in school teachers. *European Journal of Work and Organizational Psychology*. **15**: 181-196.

Culbert, T. P. (2004). *The practitioner's guide: Applications of the Freeze-Framer interactive learning system*. Boulder Creek, CA: HeartMath.

Curtis, B.M. & O'Keefe, J.H. (2002). Autonomic tone as a cardiovascular risk factor: the dangers of chronic fight or flight. *Mayo Clinic Proceedings*. **77**: 45-54.

Cynthia A. Hedricks, Chet Robie dan Frederick L. Oswald. (2013). Web-based Multisource Reference Checking: An investigation of psychometric integrity and applied benefits. *International Journal of Selection and Assesement.* **21** (1): 99 – 110.

Davidoff, H. J. dan Marie, A. N. (2004). Scientific explanation. 3rd ed. New York: Macmillan.

Davies, D.R., Matthews, G., M., Stammers, R.B. dan Westerman, S.J. (2000). *Human Performance: Cognition, Stress and Individual Differences*.Psychology Press: Hove.

Dekker J.M., Schouten E.G., Klootwijk P., Pool J., Swenne C.A., dan Kromhout D. (1997). Heart Rate Variability from in Middle- Aged and Elderly Men. *American Journal of Epidemiology*. **145**: 899-908.

Derville L. (1972). *Penggunaan psikologi dalam pengajaran*. Kuala Lumpur: Longman.

Diane, L.G., dan Cindra, S. K. (2010). *Gender in Sport and Exercise Psychology*. Handbook of Gender Research in Psychology. Springer New York. 563-585.

Djamarah, Syaiful Bahri dan Aswan Zain. (2010). *Strategi Belajar Mengajar*. Jakarta: Rineka Cipta.

Dowling J.E. (1998). *Creating Mind (How The Brain Works)*. NY: W.W. Norton & Co.

Dronjak, S. dan Gavrilovic, L. (2006). Effects of stress on catecholamine stores in central and peripheral tissues of long-term socially isolated rats. *Brazilian Journal of Medical and Biological Research*. **39**: 785–790.

Dursun, E., Dursun, N., dan Alican, D. (2004). Effects of biofeedback treatment on gait in children with cerebral palsy. *Disability and Rehabilitation*. **26**(2): 116-120.

Duschek S., Muckenthaler M., Werner N., dan Reyes del Paso G. A. (2009). Relationships between features of autonomic cardiovascular control and cognitive performance. **81**: 110-117.

Ee Ah Meng. (1993). *Psikologi perkembangan: aplikasi dalam bilik darjah* (Ed. Kedua). *Kuala Lumpur: Fajar Bakti.*

Elicker, J., Englund, M. dan Sroufe, L.A. (1992). *Predicting peer competence and peer relationships in childhood from early parent-child relationships.* NJ: Erlbaum.

Evseev, V. A., Vetrile, L. A. dan Zaharora, I. A. (2010). Effect of intranasal administration of antiglutamate antibodies after stress explosure on the stress response. Bulletin of Experimental Biology and Medicine 5(October): 551-553.

Fantino, E. (1974). Understanding psychology. Freeman.

Feder, M.E., Bennett, A.F., Burggren, W.W., dan Huey, R.B. (1987). *New Direction in Ecological Psysiology*. NY: Cambridge University Press.

Felber Dietrich, D., Schindler, C., Schwartz, J., Barthelemy, J. C., Tschopp dan J. M., Roche. (2006). Heart rate variability in an ageing population and its association with lifestyle and cardiovascular risk factors: results of the SAPALDIA study. *Europace*. **8**(7): 521-529.

Feltz, D. (1988). Self-confidence and Sport Performance. In K. B. Pandolf (Ed), *Exercise and Sport Science Review*. New York: Macmillan, (16): 423-457. Foucault, M. 1975. *Discipline, Punish and Panopticism*. NY: Vintage Book.

Firstbeat Technologies. (2005). $VO_2$ Estimation Method Based on Heart Rate Measurement. (atas talian). http://www.firstbeat.fi/files/VO2_Estimation.pdf. (15 Januari 2016).

Fontana, A. dan Frey, J.H. (1994). Interviewing: The art of science. *Handbook of qualitative research*. Thousand Oaks, CA: Sage Publication.

Forgione, A.G. dan Holmberg, R. (1981). Biofeedback therapy. In R.J. Corsini (Ed.), *Handbook of Innovative Psychotherapies*. New York: Wiley.

Frandson RD. (1986). *Anatomy and physiology of farm animals* (4th ed.). Philadelphia: Lea & Febiger.

Frazier T. W., Strauss M. E., & Steinhauer S. R. (2004). Respiratory sinus arrhythmia as an index of emotional response in young adults. *Psychophysiology*. **41**(1): 75-83.

Freeman, L. (2008). *Mosby's Complementary & Alternative Medicine: A Research-Based Approach* (3rd.ed). Philadelphia. PA: Elsevier Science.

Frewen J., Finucane C., Savva G. M., Boyle G., Coen R. F., & Kenny R. A. (2013). Cognitive function is associated with impaired heart rate variability in ageing adults: The Irish longitudinal study on ageing wave one results. *Clinical Autonomic Research*. **23**(6): 313-323.

Fried, R. dan Grimaldi, J. (1993). *The Psychology and Physiology of Breathing*. NY: Springer.

Friedhelm, S., dan Sirko, K. (2002). Autogenic Training: A Meta-Analysis of Clinical Outcome Studies. *Applied Psychology and Biofeedback*. **27**:45- 98.

Friedman BH dan Thayer JF. Autonomic balance revisited: Panic anxiety and heart rate variability. (1998). *J Psychosom Res*. **44**(1):133-51.

Friedman, B.H. dan Thayer, J.F. (1998). Anxiety and autonomic flexibility: a cardiovascular approach. Biological Psychology. **47**: 243–263.

Friman, P. C. (2008). Evidence-based therapies for enuresis and encopresis. In: Steele, R. G., Elkin, T. D. & Roberts, M.C. *Handbook of evidence-based therapies for children and adolescents: Bridging science and practice*. New York: Springer Science + Business Media.

Furlan, R., Barbic, F., Piazza, S., Tinelli, M., Seghizzi, P., dan Malliani, A. (2000). Modifications of cardiac autonomic profile associated with a shift schedule of work. *Circulation*. **102**(16): 1912-1916.

Gaillard, A. W. K. (1993). Comparing the Concepts of Mental Load and Stress. *Ergonomics*. **36**(9): 991-1005.

Garet M., Tournaire N., Roche F., Laurent R., Lacour J.R., Barthélémy J.C., Pichot V. (2004). Individual Interdependence between nocturnal ANS activity and performance in swimmers. *Med Sci Sports Exerc*. **36** (12): 2112-8.

Garver R. B. (1977). The enhancement of human performance with hypnosis through neuromotor facilitation and control of arousal level. *American Journal of Clinical Hypnosis*. **19**(2): 177-181.

Gazzaniga dan Michael. (2010). *Psychological Science*. NY: W.W. Norton & Company.

Gevirtz, R. (2000). Resonant frequency training to restore autonomic homeostasis for treatment of psychophysiological disorders. *Biofeedback*. **27**: 7–9.

Giardino, N. D., Lehrer, P. M., dan Feldman, J. M. (2000). The role of oscillations in self regulation: Their contribution to homeostasis. In D. T. Kenny, J. G. Carlson, F. J. McGuigan, & J. L. Sheppard (Eds.), *Stress and health: Research and clinical applications*. Amsterdam, Netherlands: Harwood Academic Publishers.

Gilbert, C., dan Moss, D. (2003). Biofeedback and biological monitoring. In D. Moss, McGrady, T.Davies, & I Wickramaskera. *Handbook of Mind-Body Medicine in Primary Care: Behavioral and Physiological Tools*. Thousand Oaks, CA: Sage.

Goldberger, A. L. (1991). Is the normal heartbeat chaotic or homeostatic?. *News in Physiological Science*. **6** :(87-91).

Goldman, C., & Wong, E. (1997). Stress and the college student. *Education*. **117**(4) :604-609.

Gordon, J. (1996). *Manifesto for a New Medicine*. MA: Perseus Books.

Gould D., Hodge K., Petlichkoff L., dan Simons J. (1990). Evaluating the effectiveness of a psychological skills educational workshop. *The Sport Psychologist*. **4** : 249-260.

Griffiths, T., Steel, D., Vaccaro. P. dan Karpman, M. (1981). The effects of relaxation techniques on anxiety and underwater performance. *International Journal of Sport Psychology*. **12**: 176-182.

Gruzelier J. dan Egner T. (2005). Critical validation studies of neurofeedback. *Child Adolesc Psychiatr Clin N Am.* **14** (1): 83-104.

Gula, L. J., Krahn, A. D., Skanes, A., Ferguson, K. A., George, C. dan Yee, R. (2003). Heart rate variability in obstructive sleep apnea: a prospective study and frequency domain analysis. *Annals of Noninvasive Electrocardiology*. **8**(2): 144-149.

Guyton, A. C. dan Hall, J. E. (2000). *Textbook of medical physiology*. Philadelphia: W. B. Saunders Company.

Haahr M.T. (2006). Who is blinded in randomised clinical trials? A study of 200 trials and a survey of authors *Clinical Trials*. **3**: 360-365.

Haahr. (2006). *Reflectance Pulse Oximetry Sensor for the Electronic Patch*. Technical University of Denmark.

Hales, S. (1733). Statistical essays: containing haemastaticks; or, An account of some animals. London.

Hamalik, Oemar. (2010). *Pendidikan Guru Berdasarkan Pendekatan Kompetensi*, Jakarta: PT. Bumi Aksara.

.Hamzah, A. (2003). *Ponteng Sekolah dan Kesannya Terhadap Akhlak Pelajar: Satu Tinjauan Di Sekolah Menengah Daerah Tanah Merah, Kelantan*. Universiti Teknologi Malaysia: Tesis Sarjana Muda.

Hancock, P. A., Desmond, P.A. (2001). *Stress, workload, and fatigue.* US: Lawrence Erlbaum Associates, Inc.

Hansen A. L., Johnsen B. H., dan Thayer J. F. (2003). Vagal influence on working memory and attention. *International Journal of Psychophysiology*. **48**: 263-274.

Hansen A. L., Johnsen B. H., Sollers III J. J., Stenvik K., dan Thayer J. F. (2004). Heart rate variability and its relation to prefrontal cognitive function: the effects of training and detraining. *European Journal of Applied Physiology*. **93** : 262-272.

Hardingham, L.B. (2004). Integrity and moral residue: Nurses as participants in a moral community. *Journal of Nursing Philosophy*. **5**(2): 127.

Hassett, A. L., Radvanski, D. C., Vaschillo, E. G., Vaschillo, B., Sigal, L. H., Karavidas, M. K., . . . Lehrer, P. M. (2007). A pilot study of the efficacy of heart rate variability (HRV) biofeedback in patients with fibromyalgia. *Applied Psychophysiology and Biofeedback*. **32**(1): 1-10. doi: 10.1007/s10484-006-9028-0.

Hassett, A.L., Radvanski, D.C., Vaschillo, E.G., Vaschillo, B., Sigal, L.H., Karavidas. (2007). A pilot study of the efficacy of heart rate variability (HRV) biofeedback in patients with fibromyalgia. *Applied Psychophysiology and Biofeedback*. **32**: 1-10.

Helbert A. deVries dan Terry J. H. (1986). *Physiology of Exercise: For Physical Education, Athletics and Exercise Science*. 5th Edition. London: Brown & Benchmark Publishing.

Hlastala, M.P dan Berger, A.J. (2001). *Physiology of Respiration*. 2nd Ed. Seattle, Washington: School of Medicine.

Hockey, R. dan Hamilton, P. (1983). *Stress and fatigue in human performance*.Wiley: New York.

Holden, A. E., dan Barlow, D. H. (1986). Heart rate and heart rate variability recorded in vivo in agoraphobics and nonphobics. *Behavior Therapy* : **17**(1), 26-42.

Holroyd, K., dan Penzien, D. (1994). Psychosocial interventions in the management of recurrent headache disorders 2: description of treatment techniques. *Behavioral Medicine*. **20**(2): 64-77.

Hottenrott, K., Hoos, O., dan Esperer, H. D. (2006). Heart rate variability and physical exercise. *Herz*. **31**(6): 544-552.

Howard W. L., Reardon J. P. (1986). Changes in the self concept and athletic performance of weight lifters through a cognitive-hypnotic approach: An empirical study. *American Journal of Clinical Hypnosis*. **28**(4) : 248-257.

Huang-Storms, L., Bodenhamer-Davis, E., Davis, R.dan Dunn, J. (2007). QEEG-guided neurofeedback for children with histories of abuse and neglect: Neurodevelopmental rationale and pilot study. *Journal of Neurotherapy*. **10**(4): 3-16.

Hudi Hutomo Hadi. (2008). *Budaya Plagiarisme di kalangan mahasiswa*. Tesis Ph.D. Universitas Muhammadiah Malang. Indonesia: Universitas Muhammadiah Malang.

Hudson L. (2010). *More Scripts and Strategies in Hypnotherapy*. UK. Crown House Publishing Limited.

Hugdahl, K. (1996). Cognitive influences on human autonomic nervous system function. *Current Opinion in Neurobiology*. **6**: 252–258.

Hughes J.W. (2000). Depressed Mood is Related to High-Frequency Heart Rate Variability during Stressors. *Phyhosomatic Medicine*. **62**: 796-803.

Huikuri HV, Valkama JO, Airaksinen KE, Seppänen T, Kessler KM, Takkunen JT dan Myerburg RJ. (1993). Frequency domain measures of heart rate variability before the onset of nonsustained and sustained ventricular tachycardia in patients with coronary artery disease. *Circulation*. **87**(4): 8-1220.

Hynynen E, Uusitalo-Koskinen A, Konttinen N dan Rusko H. (2004). Attenuated cardiac autonomic modulation and cognitive performance in overtrained athletes. 9th Annual Congress European College of Sports Science, France, July 2004.

Hynynen, E. (2011). Heart rate variability in chronic and acute stress with special reference to nocturnal sleep and acute challenges after awakening. *University of Jyväskylä, Studies in Sport, Physical Education and Health*. **163**.

Iacono, W.G. (2008). Accuracy of polygraph techniques: Problems using confessions to determine ground truth. *Journal of Physiology and Behavior*. **95** : 24-25.

Ingjaldsson, J. T., Laberg, J. C., dan Thayer, J. F.( 2003). Reduced heart rate variability in chronic alcohol abuse: relationship with negative mood, chronic thought suppression, and compulsive drinking. *Biological Psychiatry*. **54**(12): 1427-1436.

Institut Integriti Malaysia. (2006). *Pelan Integriti Nasional Cetakan Ketiga*, 17 Mei 2006. Putrajaya: Institut Integriti Malaysia.

Institute of HeartMath. (2015) . *Heart Rate Variability*. (atas talian) http://www.heartmath.org/ (23 Januari 2015).

Ismail, A.R. (2005). *Malaysia: Sejarah Kenegaraan dan Politik* (Ed.). Kuala Lumpur: Dewan Bahasa dan Pustaka.

Ismail Sidek. (2009). The understanding and implementation of values educations. *Jurnal Pendidikan Dan Pendidikan*. **13**: 86-98.

Jamiah Manap, Prof Dr. Hj Azimi Hj Hamzah, Prof Madya Dr. Ezhar Tamam, Prof Madya Dr. Sidek Mohd. Noh, Dr. Amini Amir Abdullah, Dr. Norizan Yahaya, Halimah Alma Othman dan Hanina Halimatus Saadiah Hamsatun. (2005). Pemantapan Nilai Integriti Individu sebagai Teras Pembangunan Staf Berkualiti. *Jurnal Akademik*. Universiti Putra Malaysia.

Kahija. (2007). *Hipnoterapi, Prinsip-prinsip Dasar Praktik Psikoterapi*. Jakarta.

Kamath, M.V. dan Fallen, E.L. (1993). Power spectral analysis of heart rate variability: a noninvasive signature of cardiac autonomic function. *Critical Reviews in Biomedical Engineering*. **21**(3): 311-345.

Kamath, M.V., Fallen, E.L., McKelvie R. (1991). Effects of steady state exercise on the power spectrum of heart rate variability. *Med Sci Sports Exerc*. **23**(4): 428-434.

Kamus Dewan Edisi Keempat. (2005). Kuala Lumpur: Dewan Bahasa dan Pustaka.

Karavidas, M.K., Lehrer, P.M., Vaschillo, E., Vaschillo, B., Marin, H., Buyske, S. (2007). Preliminary results of an open label study of heart rate variability biofeedback for the treatment of major depression. *Applied Psychophysiology and Biofeedback*. **32**: 19–30.

Kawachi, I, Sparrow D., Vokonas P.S. & Weiss S.T. (1995). Decreased Heart Rate Variability in Men with Phobic Anxiety. *The American Journal of Cardiology*. **75**: 882-885.

Kent M, Van De Graaff, Rhees W. (2002). Schaum's Easy Outlines: Human Anatomy and Physiology. McGraw Hill Trade.

Kessler, R., Soukup, J., Davis, R., Foster, D., Wilkey, S., Van Rompay, M., dan Eisenberg, D. (2001). The use of complementary and alternative therapies to treat anxiety and depression in the United States. *American Journal of Psychiatry*. **158**(20): 289-294.

Khazan. I.Z. (2013). *The Clinical Handbook of Biofeedback*. UK. John Wiley & Son, Ltd.

Khoo Chai Lee. (2010). Kejatuhan CPI-Di mana silapnya?. *Suruhanjaya Pencegah Rasuah Malaysia*. (atas talian) http://www.sprm.gov.my/artikel.html (13.10.2013).

Kimble, M. O., Frueh, B. C., & Marks. L. (2009).Does the modified Stroop effect exist in PTSD? Evidence from dissertation abstracts and the peer reviewed literature. *Anxiety Disord*, **23**(5): 650-655.

Kirkcaldy, C. (1984). Clinical psychology in sport. *International Journal of Sport Psychology*. **15**(2): 127-136.

Kivimäki M, Leino-Arjas, Luukkonen R, Riihimäki H, Vahtera J, Kirjonen J. (2002). Work Stress and Risk of Cardiovascular Mortality. *Prospective Cohort Study of Industrial Employees*. **325**:857.

Kleiger, R., Stein, P., dan Bigger, J. (2005). Heart rate variability: measurement and clinical utility. *Annals of Noninvasive Electrocardiology*. **10**(1): 88–101.

Koslowsky, M. (1998). Modeling the Stress-Strain Relationship in Work Settings. Routledge Press.

Kotani K, Takamasu K dan Tachibana M. (2007). Respiratory-phase domain analysis of heart rate variability can accurately estimate cardiac vagal activity during a mental arithmetic task. Methods Inf Med. **46**(3):376-85.

Krantz, D. S., dan Manuck, S. B. (1984). Acute psychophysiologic reactivity and risk of cardiovascular disease: A review and methodological critique. *Psychological Bulletin*. **96**: 435-464.

Krejcie R.V dan Morgan D. W. (1970). Determining Sample size for research activities. *Education and Psyhological Measurement* **30**: 607-610.

Ku Seman Ku Hussain. (2008). Analogi Akar, Pokok dan Rasuah. Dalam Anis Yusal Yusoff dan Zubayry Abady Sofian. Politik, Isu-Isu Integriti : 2000-2008. Kuala Lumpur: Utusan Publications and Distributors Sdn. Bhd., Institut Integriti Malaysia (IIM)., 38-41.

L. Bernardi, J. Wdowczyk-Szulc, C. Valenti, S. Castoldi, C. Passino, G. Spadacini, dan P. Sleight. (2000). Effects of Controlled Breathing, Mental Activity,and Mental Stress with or without Verbalization on Heart Rate Variability.*Journal of the American College of Cardiology*. **35** (6).

Lake, J., dan Moss, D. (2003). QEEG and EEG biofeedback in the diagnosis and treatment of psychiatric and neurological disorders: An authentic complementary therapy. *Biofeedback*. **31**(3): 25-28.

Landeau, J. B., Turcotte, H., Desagne, P., Jobin, J., dan Boulet, L.P. (2000). Influence of sympatho-vagal balance on airway responsiveness in athletes. *European Journal of Applied Physiology*. **83**: 370–375.

Langewitz, W., Ruddel, H., Schächinger, H., Lepper, W., Mulder, L.J., Veldman, J.H. dan Van Roon, A. (1991). Changes in sympathetic and parasympathetic cardiac activation during mental load: an assessment by spectral analysis of heart rate variability. *Homeost Health Dis*. **33**(1-2): 23-33.

Laporan Jawatankuasa Kabinet mengkaji Perlaksanaan Dasar Pelajaran, Kementerian Pendidikan Malaysia, Kuala Lumpur. 1979.

Laporan Kajian Indeks Persepsi Integriti Nasional (2007). 2008. Institut Integriti Malaysia, Kuala Lumpur.

Larsen, P. B., Schneiderman, N., dan Pasin, D. R. (1986). Physiological bases of cardiovascular psychophysiology. In M. G. H. Coles, E. Donchin, & S. W. Porges (Eds.), *Psychophysiology: Systems, Processes, and Applications* (pp. 122-165). New York: Guilford Press.

Lazarus, R. S. (1999). *Stress and Emotion: A New Synthesis*. 5th ed. Springer Publishing Co Inc: U.S.

Lehrer, P. dan Vaschillo, E. (2008). *The Future of Heart Rate Variability Biofeedback. Accociation for Applied Psychophysiology & Biofeedback*. **36**( 1) : 11-14.

Lehrer, P. M. (2003). Applied psychophysiology: Beyond the boundaries of biofeedback (mending a wall, a brief history of our field, and applications to control of themuscles and cardiorespiratory systems). *Applied Psychophysiology and Biofeedback*, ***28***(4): 291-304.

Lehrer, P. M., dan Kranitz, L. (2004). Biofeedback applications in the treatment of cardiovascular diseases. *Cardiology in Review*. **12**(3): 177-181.

Lehrer, P. M., Vaschillo, E., dan Vaschillo, B.( 2000). Resonanty frequency biofeedback baroreflex gain, and asthma. *CHEST*. **129**(2): 278-284.

Lehrer, P. M., Vaschillo, E., Vaschillo, B., Lu, S., Eckberg, D. L., Edelberg, R. (2003). Heart rate variability biofeedback increases baroreflex gain and peak expiratory flow. *Psychosomatic Medicine.* **65**: 796–805.

Lehrer, P. M., Vaschillo, E., Vaschillo, B., Lu, S., Eckberg, D. L., dan Edelberg, R. (2003i).Heart rate variability biofeedback increases baroreflex gain and peak expiratory flow. *Psychosomatic Medicine.* **65***:* 796–805.

Lehrer, P., Vaschillo, E., Lu, S.-E., Eckberg, D., Vaschillo, B., Scardella, A., dan Habib, R. (2006). Heart rate variability biofeedback: Effects of age on heart rate variability,

Lehrer, P.M. (2007). *Biofeedback Training in Increase Heart Rate Variability. In Principles and Practice of Stress Management.* 3rd ed. New York: The Guilford Press.

Levy MN dan Martin PJ.*(*1979). *Neural control of the heart*. Berne RM. Bethesda: American Physiological Society.

Ley, R. (1993). Breathing retraining in the treatment of hyperventilatory complaints and panic disorder: A reply to Garssen, DeRuiter, and Van Dyck. *Clinical Psychology Review*. **13**: 393–408.

Liao D., Cai, J., Rosamond W.D., Barnes R.W., Hutchinson R.G., Whrtsel E.A., Rautaharju P. dan Heiss G. (1997). Cardiac Autonomic Function and Incident Coronary Heart Disease: A population –Based Case – Cohort Study. *American Journal of Epidemiology*. **145**: 696-706.

Liggett D. R. (2000). Enhancing imagery through hypnosis: A performance aid for athletes. *American Journal of Clinical Hypnosis*. **43**(2) : 149-157.

Linden W dan Moseley JV. (2006). The efficacy of behavioral treatments for hypertension. *Applied Psychophysiology and Biofeedback*. **31**: 51–63.

Lipchik, G.L., Holroyd, K.A., Pinnell, C., Stensland, M., Hill, K., Malinoski, P. dan Boyer, D. (1998). *Chronic tension-type headaches: Clinical characteristics and impact on quality of life*. Society of Medicine. New Orleans, LA.

Lipsitz LA, Mietus J, Moody GB dan Goldberger AL. (1990). Spectral characteristics of heart rate variability before and during postural tilt. Relations to aging and risk of syncope. *Circulation*. **81**(6): 10-18.

Lombardi F. (2004). Physiological Understanding of HRV components. In M.Malik & A J Camms (EDS), *Dynamic electrocardiography*. New York: Blackwell Futura.

Lopez, A. M . dan Lacueva, A. (2008). Projects in a Sixth-grade Classroom: Entering a Bumpy But Promising Road. *Educational Action Research*. **16**(2), 163-185.

Long, A.S. (2005). *Pengenalan Metodologi Penyelidikan Pengajian Islam*. Bangi: Jabatan Usuluddin dan Falsafah.

Lovibond, S.H., dan Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress* impact of a new emotional self-management program on stress, emotions, heart rate variability. *Integrative Physiological & Behavioral Science*. **33***(*2): 151.

Lt Col KK Tripathi. (2004). Respiration and Heart Rate Variability: A Review with Special Reference to Its Application in Aerospace Medicine. *Ind J Aerospace Med*. **48** (1): 64-75.

Luft C. D. B., Takase E., dan Darby D. (2009). Heart rate variability and cognitive function: Effects of physical effort. *Biological Psychology*. **82**: 186-191. Malaysia.

Malaysia. (1984). *Laporan Jawatankuasa Kabinet 1979*. Kuala Lumpur: Kementerian Pelajaran

Malaysia. (1990). *Laporan Disiplin Pelajar Sekolah 1990*. Kuala Lumpur : Jabatan Percetakan

Malik M dan Camm A.J. (1995). *Heart Rate Variability*. New York: Futura Publishing Armonk.

Malliani,A.,Pagani,M.,Lombardi,F. dan Cerutti,S. (1991). Cardiovascular neural regulation explored in the frequency domain. *Circulation*. **84**: 482-492.

Marek Malik, J., Bigger, T., Camm, A., Robert, E. K., Malliani, A., Moss, A.J., Schwartz, P.J. (1996). Heart rate variability: standards of measurement, physiological interpretation and clinical use. *Task Force of the European Society of Cardiology and the North American*.

Maria, H.S dan Peter, J. (2007). Multiple window correlation analysis of HRV power and respiratory frequency. *IEEE transactions onbiomedical engineering*.**54**: 1770-1779.

Matthews, G. dan Campbell, S. E. (2009). Sustained performance under overload: personality and individual differences in stress and coping Theoretical Issues in Ergonomics Science. *Theoretical Issues in Ergonomics Science*. **10**(5): 417-442.

Maura O' Keefe .(1995) . Predictors of Childs Abuse in Maritally Violent Family. *Interpersonal Violence*. **10**(1): 3-21.

Mayer S.J. (2005). The Early Evolution of Jean Piaget's Clinical Method. *History of Psychology*. **8**(4): 362-382.

Maziah Mohd Sapar, Muhammad Nubli Abdul Wahab, Mohd Firdaus Mohd Kamaruzaman. (2012). Keberkesanan Modul LINUS berbantukan Terapi Biofeedback EmWave terhadap Murid-Murid, di Zon Chenor, Pahang. *Seminar Internasional Pelajar Pasca Siswazah Pendidikan Khas.*

McCraty R, Tiller WA, Atkinson M. (1996). Head–heart entrainment: a preliminary survey. *Brain mind applied neurophysiology EEG neurofeedback meeting*. **1**: 15-22.

McCraty, R., dan Tomasino, D. (2006). *Emotional stress, positive emotions, and psychophysiological coherence*. Weinheim, Germany: Wiley-VCH.

McCraty, Rollin, Atkinson, Mike, Tiller, William A, Rein, Glen, dan Watkins, Alan D. (1995). The effects of emotions on short-term power spectrum analysis of Heart Rate Variability. *The American journal of cardiology*. **76**(14): 1089-1093.

McCubbin J. A., Richardson J. E., Langer A. W., Kizer J. S., dan Obrist P. A. (1983). Sympathetic Neuronal Function and Left Ventricular Performance During Behavioral Stress in Humans: The Relationship between Plasma Catecholamines and Systolic Time Intervals. *Psychophysiology*. **20**(1) : 102-110.

McEwen, B. S. 1998. Protective and Damaging Effects of Stress Mediators. *The New England Journal of Medicine*. **338**(3): 171-179.

McMaster N. (1993). Behaviour modification with hypnotic visualization, the mental side of golf: A case history. *The Australian Journal of Clinical Hypnotherapy and Hypnosis*. **14**(1): 17-22.

Merriem, S.B. (1998). *Qualitative Research and Case Study Application in Education.*. San Francisco: Jossey-Bass.

Michael Heng. (2004). An Inclusive Plan to Transform the Nation. Dlm. *Pelan Intengriti Nasional.* Kuala Lumpur : Putrajaya.

Michel, F. (1991). *Discipline and Punish/The Birth of the Prison*. London: Penguin.

Mikulay, S.M. dan Goffin, R.D. (1998). Measuring and Predicting Counter Productivity in the Laboratory Using Integrity and Personality Testing, Educational and Psychological Measurement. *Sage Journal*. **58**(5):768-790.

Mobyen Uddin Ahmed, Shahina Begum, Peter Funk, Ning Xiong, Bo von Schéele. (2011). *A Multi-Module Case Based Biofeedback System for Stress Treatment*. *Artificial Intelligence in Medicine*. **51**(2):107-115.

Mohd Majid Konting. (1990). *Kaedah penyelidikan pendidikan*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Mohd Zahedi Daud. (2006). *Pelan Integriti Nasional Strategi Pelaksanaan Peringkat Institusi Pengajian Tinggi.* Kuala Lumpur: Kementerian Pengajian Tinggi Malaysia.

Motarjemi A. dan Shirzadi A. (2006). *Structural Integrity Assesment of Engineering Components*. Universiti of Cambridge. (atas talian). http://www.msm.cam.ac.uk/phase-trans/2006/SI/SI.html (19 September 2013).

Mok Soon Sang. (1995). *Pendidikan di Malaysia*. Kuala Lumpur: Kumpulan Budiman Sdn. Bhd.

Moleong L. J. (2010). *Metodologi Penelitian Kualitatif*. Bandung: PT Remaja Rosda Karya.

Molfino, A., Fiorentini, A., Tubani, L., Martuscelli, M., Rossi Fanelli, F., dan Laviano, A. (2009). Body mass index is related to autonomic nervous system activity as measured by heart rate variability. *European Journal of Clinical Nutrition*. *63*(10): 1263-1265.

Moss AJ. (1995). *Preface*. Malik M & Camm AJ. N.Y.: Futura Publ. Comp., Inc.

Moss, D. (2003). The anxiety disorders. In D. Moss, D., A. McGrady, T. Davies, & I. Wickramasekera (Eds.), *Handbook of mind-body medicine in primary care*. Thousand Oaks, CA: Sage.

Moss, D. (2004). Heart Rate Variability Biofeedback. *Psychophysiology Today*. Issue 1 (atas talian) http://www.bfe.org/articles/issue1_final.pdf (23 Februari 2015).

Moss, D., dan Shaffer, F. (2009). Respiratory Training and Heart Rate Variability Biofeedback for Anxiety Disorders and Functional Medical Disorders : Respiratory Psychophysiology. *Workshop Notes. The 13th Annual Meeting of Biofeedback Foundation of Europe, Eindhoven, Netherlands*. February 24.

Mumtaz Begam Abdul Kadir dan Mohammed Sani Ibrahim. (2009). *INTEGRITI Peningkatan Kualiti Organisasi*. Kuala Lumpur: Utusan Publications & Distributors Sdn Bhd.

Murata, A. dan Hiramitsu, Y. (2009). *Evaluation of Drowsiness by HRV Measures*. Fifth International Workshop on Computational Intelligence & Application IEEE SMC Hiroshima Chapter ; IWCIA.

Murphy. K.R. (1993). *Honesty in the workplace*. Pacific Grove, CA.: Cole Publishing.
Mushkin, S.J. 1962. Health as an investment. *Journal of Political Economy*. **70**(5) : 129-157.

Mustafar Ali. (2004). *Pelaksanaan Pelan Integriti Nasional Secara berkesan*. Kolokium Pengukuhan Integriti, Institut kefahaman Islam Malaysia pada Jun 2004.

Madon, Z dan Ahmad, M.S. (2004). *Panduan Mengurus Remaja Moden*. Bentong: PTS Professional Publishing Sdn. Bhd.

Mustafar Ali. (2005). *Membina Integriti untuk Memerangi Rasuah*. Dlm. Mazlan Musa, Izal Arifin Zahrudin dan Suzana Che Moin. Etika dan Integriti di Malaysia: Isu dan Cabaran. Kuala Lumpur: Institut Integriti Malaysia.

Myron R.T, Eugenia B.D, Mark J., Kris C. (2010). Effect of Heart Rate Variability Coherence Biofeedback Training and Emotion Management Technique to Decrease Music Performance Anxiaety. *Biofeedback*. **38** (1): 28-39.

Nelson, Richard dan Jones. (2011). *Teori dan Praktik Konseling dan Terapi.* edisi ke empat. Yogyakarta: Pustaka Pelajar.

Nesterov, S.V, Nesterov, V.P dan Burdygin, A.I. (2004). The Effect of Respiratory Frequency on Heart Rate Variability. *Doklady Biological Sciences*. **400**: 2-3.

Nestoriuc, Y., Martin, A., Rief, W. & Andrasik, F. (2008). Biofeedback treatment for headache disorders: A comprehensive efficacy review. Preview *Applied Psychophysiology and Biofeedback*. **33**(3): 125-140.

Newton, D.W, Fulmer, R., Unterberger, T. (2000.) Biofeedback: Stress Management Strategies, Counseling Services, Kansas State University. *Danskin Performance Enhancement Center*.

Nguyen, Thanh An, dan Zeng, Yong. (2013). A physiological study of relationship between designer's mental effort and mental stress during conceptual design. *Computer-Aided Design*. doi: http://dx.doi.org/10.1016/j.cad.2013.10.002 (18 Februari 2015).

Nielsen, T., Paquette, T., Solomonova, E., Lara-Carrasco, J., Colombo, R., dan Lanfranchi, P. (2010). Changes in cardiac variability after REM sleep deprivation in recurrent nightmares. *Sleep*. **33**(1): 113-122.

Nik Hairi Omar, Azmi Awang & Azmi Abdul Manaf. (2012). Integriti dari perspektif pengaduan awam: kajian kes di Jabatan Pengangkutan Jalan (JPJ) Malaysia. *Journal of Social Sciences and Humanties*. **7**: 141-155.

Nolan, R.P., Kamath, M.V., Floras, J.S., Stanley, J., Pang, C., Picton, P. (2005). Heart rate variability biofeedback as a behavioral neurocardiac intervention to enhance vagal heart rate control. *American Heart Journal*. **149**(6) : 1137.

Norsuhaila Musa, Mohamad Hilmi Mat Said, Muhammad Nubli Abdul Wahab. (2014). Aplikasi Khusuk Solat Menerusi Pendekatan Teknik Biofeedback. *'Ulum Islamiyyah Journal*. **13**: 3-18.

O'Hair, D. (1998). Biofeedback: review, history and application. http//www. users.cts.com/crash/d/deohair/psychohp.html. 15 Disember 2014.

Olson, R. (1988). A long-term, single-group follow-up study of biofeedback therapy with chronic medical and psychiatric patients. *Biofeedback & Self Regulation*. **13** (4): 331-346.

P. Rani, J. Sims, R. Brackin, and N. Sarkar. (2002). Online Stress Detection using Psychophysiological Signals for Implicit Human-robot Cooperation. *Robotica*. **20**(6).

Pagani M., Lombardi F., Guzzetti S., Rimoldi O., Furlan, R A., Pizzinelli P. A., Piccaluga E. (1986). Power spectral analysis of heart rate and arterial pressure variabilities as a marker of sympatho-vagal interaction in man and conscious dog. *Circulation research*. **59**(2) : 178-193.

Palanski, M.E., dan Yammarino, F. J. (2007). Integrity and leadership: Clearing the conceptual confusion. *European Management Journal*. **25**: 171-184.

Pallant, J. (2001). *SPSS survival manual - a step by step guide to data analysis using SPSS for windows (version 10)*. Buckingham Open University Press.

Papalia, D.E., Wendkos Olds. S. & Duskin Feldman, R. (2006). *A Child's World Through Adolescence.* 10th ed. New York: McGraw-Hill.

Paritala, S. A. (2009). Effects Of Physical And Mental Tasks On Heart Rate Variability. Electronics and Communication Engineering Kakatiya University : India.

Patrick, J., Smy, V., Tombs, M. and Shelton, K. H. (2012). Being in one's chosen job determines pre-training attitudes and training outcomes. *Journal of Occupational and Organizational Psychology*. **85**(2): 245-257.

Pattison, S. dan Edgar, A. (2011). Integrity and the Moral Complexity of Proffessional Practise. *Nursing Philosophy* .**12**(2): 94-106.

Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods.* London: Sage Publication.

Paul, M., & Garg, K. (2012). The Effect of Heart Rate Variability Biofeedback on Performance Psychology of Basketball Players. *Applied Psychophysiology & Biofeedback*, **37**(2): 131-144. doi: 10.1007/s10484-012-9185-2.

Penberthy, J.K., Cox, D., Breton, M., Robeva, R., Kalbfleisch, M.L., Loboschefski, T. dan Kovatchev, B. (2005). Calibration of ADHD Assessments Across Studies: A Meta- Analysis Tool. *Applied Psychophysiology and Biofeedback*. **30**(1): 31-51.

Peper, E., Tylova, H., Gibney, K.H., Harvey, R., dan Combatalade, D. (2008). Biofeedback Mastery-An Experiential Teaching and Self-Training Manual. CO: AAPB.

Petruzzello, S. (1991). Biofeedback and sport/exercise performance: Applications and limitations. *Behavior Therapy*. **22**: 379-392.

Piccirillo G, Busca S, Tarantini S, Santagada E, Viola E. (1998). Sympathetic activity and anxiety in hypertensive and normotensive subjects. *Archives of gerontology and geriatrics.* **26**:399-406.

Pietilä, M., Malminiemi, K., Vesalainen, R., Jartti, T., Teräs, M., Någren, K. (2002). Exercise training in chronic heart failure: beneficial effects on cardiac chydroxyephedrine pet, autonomic nervous control, and ventricular repolarization. *Journal of Nuclear Medicine,* **43**(6)*:* 773-779.

Pignatelli, D., Magalhaes, M. M. dan Magalhaes, M. C. (1998). Direct effects of stress on adrenocortical function. *Hormone and metabolic research*. **30**:464–474.

Porges, S. W. (1995). Cardiac Vagal Tone: A Physiological Index of Stress. *Neurosciences and Biobehavioral Reviews.* **19** (2): 225 – 233.

Pon, Y. (2010). Pembagunan Integriti di Malaysia. Seminar Antarabangsa Pembangunan Wilayah Ekonomi, Perundingan dan Pentadbiran Malaysia dan Indonesia. (7-9 Jun 2010) Riau, Indonesia.

Pougatchev, V., M.D., dan Pougatchev, I. (2008) . *Breathing Exercise Trainer: Stress Sweeperbuser's Manual, Version 10*. USA: Advanced Wellness Solutions LLC.

Pribram, K. (1986). The cognitive revolution and mind/brain issues. *American Psychologist*. **41** : 507–520.

Pujol, J., Vendrell, P., Deus, J., Junqué, C., Bello, J., MartI-Vilalta J. L., dan Capdevila. A. (2001). The Effect of Medial Frontal and Posterior Parietal Demyelinating Lesions on Stroop Interference. *NeuroImage*. **13**(1): 68-75.

Rabbia, F., Silke, B., Conterno, A., Grosso, T., De Vito, B. dan Rabbone, I. (2003). Assessment of cardiac autonomic modulation during adolescent obesity. *Obesity Research*. **11**(4): 541-548.

Randall DC, Brown DR, McGuirt AS, Thompson GW, Armour JA dan Ardell JL. (2003). Interactions within the intrinsic cardiac nervous system contribute to chronotropic regulation. *Am J Physiol Regul Integr CompPhysiol*. **285**:75-1066.

Rauh, R., Burkert, M., Siepmann, M., dan Mueck-Weymann, M. (2006). Acute effects of caffeine on heart rate variability in habitual caffeine consumers. *Clinical Physiology and Functional Imaging*. **26**(3): 163-166.

Renaud, P. dan Blondin, J.P. (1997). The stress of stroop performance: physiological and emotional responses to colour-word interference, task pacing and pacing speed. *International Journal of Psychophysiology*. **27**: 87-97.

Robazza, C., dan Bortoli, L. (1995). A case study of improved performance in archery using hypnosis. *Perceptual and Motor Skills*. **81** :1364-1366.

Robbins. Jim. (2000). A Symphony in the Brain: The Evolution of the New Brain Wave Biofeedback. Boston, MA: Atlantic Monthly Press.

Rogers, E. (1969). Tonic heart rate: Experiments on the effects of collative variables lead to a hypothesis about its motivational significance. *Journal of Personality and Social Psychology*. **12**(3): 211-228.

Rohana Man. (2010). Memperkasakan integriti mahasiswa. *Utusan Online*, 18 Mac 2010.

Rook, J. W. dan Zijlstra, F. R. H. (2006). The contribution of various types of activities to recovery. *European Journal of Work and Organizational Psychology*. **15** : 218 – 240.

Rossett, A. (1987). Training Needs Assessment. Englewood Cliffs, NJ: Educational Technology Publications.

Rusko, H. K. (2006). Presentation on the course "Applied exercise physiology". University of Jyvaskyla.

Rusli dan Wijaya, J. (2009). *The Secret of Hynopsis*. Jakarta.

Ruth O'Hara. (2006). Role of Stress in Neuropsychiatric and Neurocognitive Disorders in Older Adults, Specifically on Late Life Depression and Cognition. *Annals of General Psychiatry* 5(February): 16.

Sadock, B. (2002). Kaplan & Sadock s Synopsis of psychiatry: behavioral sciences, clinical psychiatry (9th ed.). UK: Lippincott Williams & Wilkins.

Saeede Masafi, Omid Rezael dan Hasan Ahadi. (2011). Efficacy of biofeedback associated with relaxation in decreasing anxiety in women with breast cancer during chemotherapy. *Procedia Social and behavioral Science*. **30**: 143-148.

Salahuddin, L., Jaegeol, C., Myeong Gi, J., dan Kim, D. (2007). Ultra Short Term Analysis of Heart Rate Variability for Monitoring Mental Stress in Mobile Settings. *Proc. Engineering in Medicine and Biology Society, 29th Annual International Conference of the* IEEE. 4656-4659. Milano: 23-26 Ogos.

Salmon, P. G. (1990). A psychological perspective on musical performance anxiety: A review of the literature. *Medical Problems of Performing Artists*. **5** : 2–11.

Saul, J. P., Berger, R. D., Albrecht, P., Stein, S. P., Chen, M. H., dan Cohen, R. J. (1991). Transfer function analysis of the circulation: Unique insights into cardiovascular regulation. *American Journal of Physiology*. **261**: 1231–1245.

Schreiber, E. H. (1991). Using hypnosis to improve performance of college basketball players. *Perceptual and Motor Skills*. **72**: 536-538.

Schwartz, M., dan Andrasik, F. (2003). *Biofeedback: A Practitioner's Guide.* 3rd ed. NY: Guilford.

Selder, H. (1982). Psychology preparation of Olympic athletes: Atleica stuch (ITA). *International Journal of Sport Psychology*. **5**: 65-84.

Selye, H. (1946). The general adaptation syndrome and the diseases of adaptation. *Journal of Clinical Endocrinology*. **6** : 117 – 230.

Sezali Din. (1997). *Langkah Menangani Gejala Sosial. Dalam Akademik.* Keluaran Khas.

Sforza, E., Pichot, V., Cervena, K., Barthelemy, J. C., dan Roche, F. (2007). Cardiac variability and heart-rate increment as a marker of sleep fragmentation in patients with a sleep disorder: a preliminary study. *Sleep*. **30**(1): 43-51.

Shaffer, F., dan Moss, D. (2006). *Biofeedback. Textbook of Complementary and Alternative*. UK: Informa Healthcare.

Shah A. J., Shaoyong S., Veledar E., Bremner J. D., Goldstein F. C. dan Lampert R. (2011). Is Heart Rate Variability Related to Memory Performance in Middle-Aged Men? *Psychosomatic Medicine*. **73** : 475-482.

Shmavonian, B. M. (1998). *Definition of biofeedback from Grolier Encyclopedia*. http://freud.tau.ac.il/-ipa/defin.htm. 15 Disember 2014.

Sime, W. (2003). Sports psychology: Applications of biofeedback and neurofeedback. In M. Schwartz, & F. Andrasik (Eds.). *Biofeedback: A practitioner's guide*. New York: The Guilford Press.

Simona M. (2010). Polygraph-Lie Ditector, The Biofeedback, (atas talian) www.fizioms.ro/edu/lp/data/POLIGRAPH.pdf (13 Oktober 2013).

Sinungan, Muchdarsyah. (1997). *Produktivitas: Apa dan Bagaimana*. Jakarta: Bumi Aksara.

Šiška, E. (2002). The Stroop Colour-Word Test in Psychology and Biomedicine. *Acta Univ. Palacki. Olomuc*. **32**(1): 45–50.

Slavin, R.E. (1997). *Educational psychology. Theory and practice*. 5th.ed. Boston: Ally & Bacon.

Sloan, R.P., Bagiella, E. dan Shapiro, P.A. *(*2001). Hostility, gender, and cardiac autonomic control. *Psychosomatic Medicine*. **63**: 434–440.

Smink J. dan Reimer M. S. (2005). Fifteen Effective Strategies for Improving Student Attendance and Truancy Prevention. National Dropout Prevention Center/Network: Universiti Clemson.

Sonnentag, S. dan Kruel, U. (2006). Psychological detachment from work during off-job time: The role of job stressors, job involvement, and recovery-related self-efficicacy. *European Journal of Work and Organizational Psychology*. **15** (2) : 197 – 217.

Spielberger, C. (1983) . *State-Trait Anxiety Inventory.* California: Mind Garden.

Stein P.K., Carney R.M., Freedland K.E., Skala J.A., Jaffe A.S., Kleiger R.E. dan Rottman J.N. (2000). Severe Depression is associated with Markedly Reduced Heart Rate Variability in Patients with Stable Coronary Heart Disease. *Psychosomatic Research*. **48**: 493-500.

Strack, B. W. (2003). Effect of heart rate variability (hrv) biofeedback on batting performance in baseball. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. **64** : 1540.

Straus, M.A. (2006). *Manual for the Dimensions (~l Discipline Inventory: Family Research Laboratory, University of New Hampshire*. NH: Durham.

Stroop, J Ridley. (1935). Studies of interference in serial verbal reactions. *Journal of experimental psychology*, **18**(6): 643.

Su Kiat Lim. (1993). Organisational Resources and Agility Implications for Organisational Performance. *Strategic Marketing Issues*. **16**.

Subbulaxmi S. (2002.) Productivity and stress. *Management*. **2**(3): 26–8.

Sugiyono. (2009). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung : Alfabeta.

Sukardi. (2004). Metodologi Penelitian Kependidikan, Yogyakarta: Bumi Aksara.

Sulaiman Mahbob. (2005). Pelan Integriti Nasional (PIN). Dlm. Mausoleum Musa (pnyt.). *Etika dan Integriti di Malaysia: Isu dan Cabaran*. Kuala Lumpur: Institut Integriti Malaysia.

Sutarto, A. P., Wahab, M. N., & Zin, N. M. (2012). Resonant breathing biofeedback training forstress reduction among manufacturing operators. *International journal of occupational safety and ergonomics : JOSE*. **18**(4): 549-561.

Syed Azauddin Syed Bahaldin. (2005). *Alternative Quality Management Standards-Islamic Perspective*. Kuala Lumpur: Utusan Publications & Distributors Sdn Bhd.

Taelman, J., Vandeput, S., Spaepen, S. dan Van Huffel, S. (1998). Influence of Mental Stress on Heart Rate and Heart Rate Variability. *Proc. IFMBE Proceedings*. Springer. 1366–1369.

Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology. (1996). Heart rate variability: Standards of measurement, physiological interpretation, and clinical use. *European Heart Journal*. **17**: 354-381.

Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology. (1996). Heart rate variability: standards of measurement, physiological interpretation and clinical use. *Circulation*. **93**: 1043–1065.

Thackray, R. I., dan Jones, K. N. (1971). Level of arousal during stroop performance: Effects of speed stress and distraction. *Psychonomic Science*. **23**(2): 133-135.

Tharion, E., Parthasarathy, S. dan Neelakantan, N. (2009). Short-term heart rate variability measures in students during examinations. *The national medical journal of India.* **22** (2): 63-66.

Thayer, J. F., dan Sternberg, E.( 2006). Beyond heart rate variability: vagal regulation of allostatic systems. *Annals of the New York Academy of Sciences*. **1088**: 361-372.

Tony, B. dan Paul, R.T. (2001). Academic Tribes and Territories, Buckingham. *The Society for Research into Higher Education and Open University Press*. 41.

Tripathi L.C.K.( 2004). Respiration and Heart Rate Variability: A Review With Special Reference To Its Application In Aerospace Medicine. *Ind J Aerospace Med*. **48** (1).

Tsuji H., Larson M.G., Venditti Jr F.J., Manders E.S., Evans J.C., Feldman C.L dan Levy D.(1994). Reduced heart rate variability and mortality risk in an Elderly Cohort : Framingham Heart Study. *Circulation*. **90**:878-883.

Tsuji H., Larson M.G., Venditti Jr F.J., Manders E.S., Evans J.C., Feldman C.L dan Levy D. (1996). Impact of Reduced heart rate variability on risk for cardiac events: The Framingham Heart Study. *Circulation*. **94**: 2850-2855.

Tuckman B.T. (1978). *Conducting Educational Research*. 5th ed. The Ohio State University: Harcourt Brace College Publishers.

Tulppo M. P., Mäkikallio T. H., Seppänen T., Laukkanen R. T., dan Huikuri H. V. (1998). Vagal modulation of heart rate during exercise: effects of age and physical fitness. *American Journal of Physiology-Heart and Circulatory Physiology*. **274**(2): 424-429.

Tulppo MP, Hughson RL, Mäkikallio TH, Airaksinen KE, Seppänen T dan Huikuri HV. (2001a). Effects of exercise and passive head-up tilt on fractal and complexity properties of heart rate dynamics. *Am J Physiol Heart Circ Physiol*. **280**(3): 7-1081.

Tulppo MP, Mäkikallio TH, Seppänen T, Shoemaker K, Tutungi E, Hughson RL dan Huikuri HV. (2001b). Effects of pharmacological adrenergic and vagal modulation on fractal heart rate dynamics. *Clin Physiol*. **21**(5): 23-515.

Tuomainen, P., Peuhkurinen, K., Kettunen, R., dan Rauramaa, R. (2005). Regular physical exercise, heart rate variability and turbulence in a 6-year randomized controlled trial in middle-aged men: the DNASCO study. *Life Sciences*. **77**(21): 2723-2734.

Turner, B. (2006). Discipline. *Theory, Culture and Society*. **23**: 183-186.

Utusan Malaysia. (2010). Garis Panduan Nilai Integriti Ahli Akademik Diwujudkan. 12 Mei 2010: 15.

Valentini, M., dan Parati, G. (2009). Variables influencing heart rate. *Progress in Cardiovascular Diseases*. **52**: 11-19.

Van Ravenswaaij-, Kollée LAA, Hopman JCW, Stoelinga GBA dan Vangeijn HP. (1993). Heart-rate-variability. *Ann Intern Med*. **118**: 436–47.

Vaschillo, E. G., Lehrer, P. M., Rishe, N., dan Konstantinov, M. (2002). Heart rate variability biofeedback as a method for assessing baroreflex function: A preliminary study of resonance in the cardiovascular system. *Applied Psychophysiology and Biofeedback*. **27**(1): 1-27.

Vaschillo, E. G., Vaschillo, B.,dan Lehrer, P. M. (2006). Characteristics of resonance in heart rate variability simulated by biofeedback. *Applied Psychophysiology and Biofeedback*. **31** 129–142.

Velkumary S. dan Madanmohan. (2004). Effect of short-term practice of breathing exercises on autonomic functions in normal human volunteers. *Indian J Med Res*. **120.** 115-121.

Vick, D.W. (2004). Interdisciplinarity and the Discipline of Law. *Journal of Law and Society*. **31**(2): 172.

Vitacca M, Clini E, Bianchi L, Ambrosino N. (1998). Acute effects of deep diaphragmatic breathing in COPD patients with chronic respiratory insufficiency. *Eur Respir J*. **11**(2): 408–415.

Wallen N.E dan Fraenkel J.R. (2011). *Education Research A Guide to the Process*. New Jersey: Lawrence Erlbaum Associates. Inc.

Webster, J.G. (1997). *Design of pulse oximeters*. IOP Publishing Ltd.

Wecker N.S., Kramer J.H., Wisniewski A, Delis D. C., Kaplan E. (2000). Age effects on executive ability. *Neuropsychology*. **14**: 409-414.

Weise, F, Heydenreich, F, Kropf, S dan Krell, D. (1990). Intercorrelation analyses among age, spectral parameters of heart rate variability and respiration. *Journal of Interdisciplinary Cycle Research***. 21**: 17 – 24.

Weishew, N. L., dan Peng, S. S. (1993). Variables predicting students' problem behaviors. *The Journal of Educational Research*. **87**(1) : 5-17.

Wenz, B, dan Strong. (1980). An application of biofeedback and self regulation procedures with superior athletes. In R.W. Suinn (ed.). Psychology in Sports: Methods and Applications. Minneapolis: Burgess Publishing Company. pp. 310-333.

Widang, I. dan Fridlund, B. (2004). Self-respect, dignity and confidencr: cenceptions of integrity among male patients. *Journal of Advance Nursing*. **42**(1), 47-50.

Widmaier, E.P., Raff, H. dan Strang, K.T. (2008). *Vander's Human Physiology*. 11th ed. McGraw-Hill.

Wijsman, Jacqueline, Grundlehner, Bernard, Liu, Hao, Hermens, Hermie, dan Penders, Julien. (2011). Towards mental stress detection using wearable physiological sensors. *Paper presented at the Engineering in Medicine and Biology Society, EMBC, 2011 Annual International Conference of the IEEE*. Bostan, USA: 30 ogos – 3Sept.

Williams, J. M. G., Mathews, A., dan MacLeod, C.(1996). The Emotional Stroop Task and Psychopathology. *Psychological Bulletin*. **120**(1) : 3-24.

Williams. H dan Jones R.S.P. (1997). *Teaching cognitive self-regulation of independence and emotion control skills.* London. Routledge.

Woolfolk, A. (2004). *Educational Psychology*. 9th Eds. New Jersey: Prentice-Hall, Inc.

Wulandari, Putu Afsari. (2013). Penerapan Konseling Behavioral Teknik Positive Reward untuk Meningkatkan Responsibility Academic Siswa Kelas X.. **1(**1): 15. http://ejournal.undiksha.ac.id/index.php/JJBK/article/view/762, (25 Februari 2015).

Yahya, A.K. (2010). Isu dan Cabaran Memerangi Rasuah. *Suruhanjaya Pencegah Rasuah Malaysia*. (atas talian). http://www.sprm.gov.my/artikel.html (13.10.2013).

Yamaguti WP, Claudino RC, Neto AP, Chammas MC, Gomes AC, Salge JM, et al. (2012). Diaphragmatic breathing training program improves abdominal motion during natural breathing in patients with chronic obstructive pulmonary disease: a randomized controlled trial. *Arch Phys Med Rehabil.* **93**(4):571–577.

Yasuma, F dan Hayano, J. (2004). Respiratory sinus arrhythmia: why does the heartbeat synchronize with respiratory rhythm. *Chest*. **125**: 683-690.

Yeragani V.K., Sobolewski E., Igel G., Johnson C., Jampala V.C., Kay J., Hillman N., Yeragani S. dan Vempati S. (1998). Decreased Heart –period Variability in patients with panic disorder. *Psychiatry research*. **78**: 88-89.

Yildiz, M. dan Ider Y.Z. (2006). Model based and experimental investigation of respiratory effect on the HRV power spectrum. *Physiol Meas*.**10**: 973–988.

Zaichkowsky, L. dan Fuchs, C. (1988). Biofeedback applications in exercise and atheletic performance. *Exercise and Sport Science Review.* **16**: 381-421.

Zijlstra, R.R.H dan Sonnentag, S. (2006). After work is done: Psychological perspectives on recovery from work. *European Journal of Work and Organizational Psychology.* **15**: 129-138.

Zubaedi. (2011). Desain Pendidikan Karakter Konsepsi dan Aplikasinya dalam Lembaga Pendidikan. Jakarta: Kencana.