

A Mindset Education Model for Character Building of the Students of Yogyakarta State University, Indonesia

Syukri Fathudin Achmad Widodo^a, Sukardi^b, Benni Setiawan^c

^asyukri@uny.ac.id, ^bsukardi@uny.ac.id, ^cbennisetiawan@uny.ac.id

^{a,b,c}Yogyakarta State University

Jl Colombo No.1 Yogyakarta, Indonesia

Abstract. This research aims to develop a positive mindset education model that supports sustainable career development and to reveal its effectiveness in educating the positive mindset that enhances student's carrier development sustainably. It is population research employing Fleming Model. The research subjects include 35 fourth semester students and 50 second semester students of the Department of Mechanical Engineerring, Faculty of Engineering, Yogyakarta State University. The data were collected by surveying the Internet sites that correlate with the future, negative thinking, and work hunting. The developed model consists of the sub-system, specific information, main theory, figure/motivator, repetition, and Internet sites. The model shows its effectiveness after four times of repetition.

Keywords: career development, character, education, mindset, model

1. Introduction

The first coaching step in mindset education is the development of its own human resources [1] because the readiness of human quality is the driving force of other factors [2]. Mindset is a belief or a set of beliefs, behaviors, ways of thinking, views and attitudes that determine a person's level of success in the future [3]. While belief is something that is believed to be true or acceptance by the thought that something is true [4]

Mindset affects attitudes, attitudes affect actions, forms habits, habits shape character, and character determines the level of success, which subsequently the level of success will affect the mindset, and so on [5]. Change results without changing mindset [6].

There are three (3) things that affect the mindset, namely information input, environment, and past experience [7]. Basically, everyone has three (3) reference/representation systems, but the person in question has one of the reference systems/representation systems of the three which are the mainstay of the process of releasing information from memory [8].

The reference system is visual, auditory and kinesthetic [9]. Relevant research found that students' thinking patterns that were classified as wrong include perception of fate, perception of luck, negative prejudices, worrying about the future, and difficult-to-get-a-job perception [10].

The research problem can be formulated as how a positive mindset education model supports sustainable career development and how effective the model is in supporting sustainable career development. The research objective is to develop a positive mindset education model that supports sustainable career development and to reveal the effectiveness of the developed model in supporting sustainable career development.

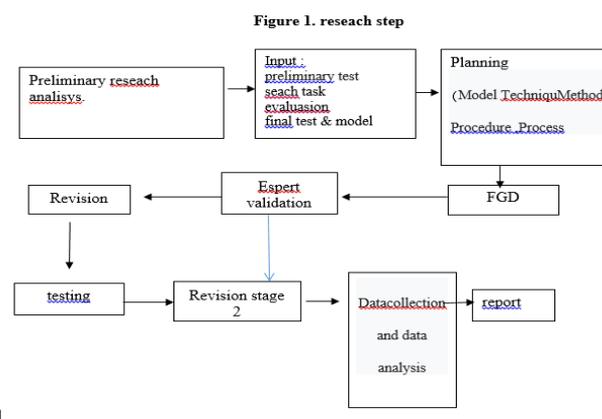
2. Methods/Materials

This research is exploratory descriptive research using Fleming Model–VAK; Fleming's VAK model stands for Visual (V), Auditory (A), and the Kinesthetic (K) sensory modalities. This model gives an overview about learner's learning styles referring to the sensory modalities involving in information-seeking. In addition, this model is developed from neuro-linguistic programming (NLP) models. Based on the NLP model, the senses are divided into three categories: visual, auditory, and kinesthetic referred to as Representational Systems. This term denotes that the brain employs the senses to establish internal representation or the model pertaining the world surrounding us [11].

The data were collected using a questionnaire and through lecture, discussion, interviews, and task giving. The research subjects consist of semesters 2 and 4 students of Diploma 3 program, semesters 2 and 6 students of Bachelor program of the Department of Mechanical Engineering Education, Faculty of Engineering, Yogyakarta State University.

The research followed the procedure including listening, seeing, and feeling, continued with taking notes on interesting, memorable, inspiring things. The students wrote down the related changes in their perception if any.

The process began with performing the initial mindset (perception) test, identifying (sorting and choosing according to the priority), and determining the object of the Internet site; briefing; searching; learning and understanding, and evaluating changes in perception. The assessment of perception was carried out by looking at the world from the students' perspectives.



3. Findings and Discussions

The results of the study include an increase in the quality of mindset, insights gained, insights that are directly embedded, summaries of results, presented in Table 1, Table 2, Table 3, Table 4, and Table 5 respectively below:

Table 1. Increasing the Mindset Quality

No.	Object of thought patterns	Mindset Semester IV students		Mindset Semester II students	
		+ Before	+ After	+ Before	+ After
1	Future Concerns	48.85	100	33.22	96.18
2	Negative Prejudice.	20.22	56.81	46.51	51.85
3	Shadow of looking for work	38.63	90.90	15.42	82.67
Mean		35.90	82.57	31.71	76.90

Information on scoring:

1. Before treatment: score based on the answer to the Yes/No questions in the questionnaire.
2. After treatment: score based on an analysis of cases based on the respondent's mindset, with reference to indicators implied by the future, prejudice, and work.
3. Total casting: reality frequency x 100 : the number of respondents
4. Second Semester Student Treatment: Internet tracking 2 x 2 hours.

Final test administered one week after the completion of all searches

. Semester II Student Treatment: Internet search for 4 x 2 hours

Final test administered one week after the completion of all searches

Table 1 shows that the mindset score of semester 4 students is 82.57, and that of semester 2 students is 56.81 (low category). Both groups' mindset score in prejudice is still low, namely 56.81 for fourth semester students, and 51.85 for second semester students. This score is higher than that in the research by Subiyono [12] about the prejudice schemes of second and fourth semester students whose scores were only 35.70 and 38.70. This happens because the students are at their new age to maturity so the effect of the environment and their past is still looming. This is in accordance with the theory in [7] stating that there are three things that affect mindset, namely information input, environment, and past experience, while in this study it does not respond to negative environmental influences and past negative influences. In addition, it is possible that the model lacks a number of prominent figures who provide information about prejudice so as not to provide stability of results [13].

Furthermore, the scores of the dream of looking for jobs of the fourth semester students at 90.90 and for second semester students at 82.67 are quite good. This is because it is affected by their belief in the future which has a score of 100 for the fourth semester students 96.18 for the second semester students. The future is related to a clear purpose in life, soft skills, and mindset.

This result is in line with Karwowski & Kaufman (Eds.) [14] who write that the importance of goals or ideals is to give hope, be sensitive to direction, encourage, give focus, guide plans and

decisions on measures of progress, give challenges, and help and explore self-potential. This result is also in line with the theory that other experts say that the functions of the objectives include being sensitive to direction as a measure of progress, helping and exploring self-potential, giving targeted challenges, giving focus, encouraging, giving direction to life, giving motivational focus, clarifying roles and positions, defining benchmarks for meaning of success and happiness, and facilitating steps [15].

Table 2. Insights obtained

No.	Object minds et	Object indicator of mindset	Insights on Semester IV Students	Score insight into Semester II Students
1	Futur e	Purpos e of life	100	63
			100	93.5
		Soft skill	72.72	72.72
		Mindse t	Mean 90.90	Mean 76.40
2	Preju dice	Prejudi ce	88	43.45
3	Work	Focus	68	36.36
		Idol	100	35.41
		Thank you	94.40	26.26
			80	09.00
		Worshi p	Mean 85.6	Mean 26.75

Declining description

Score: there is no insight gained x 100

Number of respondents

Table 2 shows that the information the semester IV students obtained or absorbed from the figures is as follows: the future was given a score of 90.90, prejudice was given a score of 88.88, and job was given a score of 85.60. This shows the students' seriousness and interest in the information the figures have conveyed. The information the second semester students obtained or absorbed from the figures is as follows: the future was given a score of 76.40, prejudice was given a score of 43.45, and job was given a score of 26.75

This result indicates that the second semester students tend not to have a clear purpose in life, have not imagined the future, are not fully mature and still unstable, have not thought about the job, and do not yet know the importance of the idol. So it cannot be said that they are not interested in the future but more likely that they do not yet think it is a necessity and important for them, or they do not even know the importance of thinking for the future, prejudice, and profession from early age to study in universities.

Table 3. Insights that are directly embedded.

No.	Object mindset	Object indicator of mindset	Score Embedded/changed insights Semester IV student mindset	Score Embedded/changed insights Semester II students
1	Future	Purpose of life	93	62.5
		Soft skill	60	90.77
		Mindset	72.72	57.65
		Mean	75.24	70.10
2	Prejudice	Prejudice	66	43.80
3	Occupation	Focus	60	45.45
		Idol	88.88	28.57
		Thank's god	77	27.27
		Worship	55	27.27
		Mean	70.22	32.14

Score description

Score: $\frac{\text{there is no embedded insight}}{\text{Number of respondents}} \times 100$

Number of respondents

Based on Table 3 above, some of the information the semester IV students absorbed from the prominent figures is missing/blurred/leaked/not needed and thus the embedded information changes their mindset. The score is as follows: the future was given a score of 75.24, prejudice was given a score of 66, and getting a job was given a score of 70.10, which means that the three aspects of mindset are in a good category.

Furthermore, some of the information the semester II students absorbed from the figures is missing/blurred/leaked/not needed and thus the embedded information changes their mindset. The score is as follows: the future was given a score of 70.10, prejudice was given a score of 43.80, and getting jobs was given a score of 32.14. This means that the future is in a good category because it is intrigued to realize the importance of thinking about the future at the beginning of college life, while prejudice is still in the poor category because they are still at the stage of becoming an adult with the influence of the environment and their past experience. The job was given a very low score because

they have not yet begun to think about jobs with the above conditions [16] for both second and fourth semester students, which shows that perceptions of struggle to get jobs was given a score of 31.85 by the second semester students and 74.19 by the fourth semester students.

Table 4. Summary of Results for Semester IV Students

No.	Object mindset	Incoming insights	Em bedded insights	Insight becomes reality
1	Future	90.90	75.24	100
2	Prejudice	88.88	66	56.81
3	Work	85.60	70.22	90.90
	Mean	88.46	70.48	82.57

Remarks: Entrance insights based on Table 2.

Embedded insights based on Table 3

Insights that become reality based on the scores in Table 1

Table 4 above shows that the mindset education model with the method of the effect of information from prominent figures and repetitions produces the following. By the fourth semester students, the insights absorbed was given a score of 88.46, the embedded insights was given a score of 70.48, and the insight that becomes reality was given a score of 82.57. From the directly embedded period to the stage of reality, it has increased through the process of deposition and time. The condition means that these insights are increasingly embedded rather than lost over time. Thus the performance of the model is in a very good category with the score of 82.57.

Table 5. Summary of Results for Semester II Students.

No.	Object mindset	Incoming insights	Embedded insights	Insight becomes reality
1	Future	76.40	70.10	96.18
2	Prejudice	43.45	43.80	51.85
3	Work	26.75	32.14	82.67
	Mean	48.86	48.68	76.90

Table 5 shows that the model of mindset education with the method of the effect of information from prominent figures and repetition has resulted in the following. For the second

semester students the insight absorbed gets a score of 48.86, directly embedded insight gets a score of 48.68 and insights that come true gets a score of 76.90. The directly embedded period to the stage of reality has increased with the process of deposition and time.

The condition is that these insights are increasingly embedded rather than lost over time. Thus the performance score of the model is in the good category, which shows the realization into reality gets a score of 76.90.

Compared to the results shown by the fourth semester students, this result is much lower, because the repetition for the fourth semester students is four times while the repetition for the second semester students is only twice. In addition, as mentioned above, the second semester students tend not to think about the future and profession, tend not to know the importance of thinking about the future and profession so they tend not be interested in profession because for them it is not a necessity.

The results of this study indicate that a prominent figure plays an important role in the growth and development of adolescents towards adulthood. They can provide inspiration and at the same time give important decisions in life.

Words, behavior, and all the good things displayed by a prominent figure can be inspiring. Inspiration is what drives a person to decide and establish choices about the future. When the information obtained is complete and relevant with the feeling of someone, he/she will be more confident and will choose the path as directed by the figure.

Prominent figures also become a mirror-like which means that their presence can motivate students to be better. This change of self can determine the future. A student in this study can think about the future when he is inspired by a figure. Furthermore, this research reveals that repetition in watching and paying attention to details about prominent figures has a significant effect on mindset and character. Thus, repetition becomes important in civilizing characters in visual, audio, and kinesthetic processes (VAK).

4. Conclusion

Based on this study, it can be concluded that the developed model includes specific information systems, core theories (mind power and law of attraction), used method (types, techniques, procedures, processes), and visual kinesthetic-based visual information types (knowledge insights, true stories, facts, success stories, idols). The method used is the utilization of figures and repetition, through the media chosen in accordance with the case. The criteria of success uses three mean stages of success: the insights absorbed, the embedded insights, and the insight into reality.

The effectiveness of the model for the fourth semester student group with four-time repetitions achieves the insights absorbed score of 88.46, the embedded insights score of 70.48, and the insight into reality score of 82.57, resulting in an average score of 80.50, while for the second semester student group with twice repetition achieves the insights absorbed score of 48.86, the embedded insights score of 48.68 and the insight into reality score of 76.9, resulting in average score of only 58.14. Thus the model will be very effective when using four time repetition.

Through the VAK model, utilizing figures and repetition through social media/internet becomes very important. Prominent figures and repetition help a person in the process of forming the mindset and actions. The implication of this research is that educators need to provide more information and present more figures so that students have more views and solutions to various problems they face. Future studies can develop with many figures and be tested on people who have problems in life.

Recommendation

Two recommendations of this research are presented below. First, educators must actively search for the appropriate title of the site, and match, listen, explore and learn first, so that it can find input information that varies from different figures that lead more deeply for the sake of repetition. Second, the ideal repetition is based on the theory of stages in affecting the human subconscious mind is four times, namely pre-induction, recognition, deepening, and trance.

References

- [1] Lewis, L. S., Williams, C. A., & Dawson, S. D: (2020). Growth mindset training and effective learning strategies in community college registered nursing students. *Teaching and Learning in Nursing*, 15(2), 123-127. (2020).
- [2] Rissanen, I., Kuusisto, E., Tuominen, M., & Tirri, K: In search of a growth mindset pedagogy: A case study of one teacher's classroom practices in a Finnish elementary school. *Teaching and teacher education*, 77, 204-213. (2019).
- [3] Burnette, J. L., Knouse, L. E., Vavra, D. T., O'boyle, E., & Brooks, M. A: Growth mindsets and psychological distress: A meta-analysis. *Clinical Psychology Review*, 101816. (2020).
- [4] Yan, V. X., Thai, K. P., & Bjork, R. A: Habits and beliefs that guide self-regulated learning: Do they vary with mindset? *Journal of Applied Research in Memory and Cognition*, 3(3), 140-152. (2014).
- [5] Smith, J. R., Hogg, M. A., Martin, R., & Terry, D. J: Uncertainty and the influence of group norms in the attitude-behaviour relationship. *British Journal of Social Psychology*, 46(4), 769-792. (2007).
- [6] Bejjani, C., Depasque, S., & Tricomi, E: Intelligence mindset shapes neural learning signals and memory. *Biological psychology*, 146, 107715. (2019).
- [7] Gollwitzer, P. M., & Keller, L: Mindset theory. *Encyclopedia of personality and individual differences*, 1-8. (2016).
- [8] Macnamara, B. N., & Rupani, N. S. The relationship between intelligence and mindset. *Intelligence*, 64, 52-59. (2017).
- [9] Tillery, S. I., Flanders, M., & Soechting, J. F: A coordinate system for the synthesis of visual and kinesthetic information. *Journal of Neuroscience*, 11(3), 770-778. (1991).
- [10] Deluca, C., Coombs, A., & Lapointe-Mcewan, D. Assessment mindset: Exploring the relationship between teacher mindset and approaches to classroom assessment. *Studies in Educational Evaluation*, 61, 159-169. (2019).
- [11] K, S. S., & Helena, T. C: Styles of learning based on the research of Fernald, Keller, Orton, Gillingham, Stillman, Montessori and Neil D Fleming. *International Journal for Innovation Research in Multidisciplinary Field*. 3(4), 17-25. (2017).
- [12] Subiyono, et all: Kualitas visi pola pikir dan profil soft skill mahasiswa pendidikan teknik mesin Fakultas Teknik Yogyakarta State University. Yogyakarta: UNY Press. (2016).
- [13] Othman, N., & Amiruddin, M. H: Different perspectives of learning styles from VARK model. *Procedia-Social and Behavioral Sciences*, 7, 652-660. (2010).
- [14] Karwowski, M., & Kaufman, J. C. (Eds.): *The creative self: Effect of beliefs, self-efficacy, mindset, and identity*. Academic Press. (2017).
- [15] Bedford, S: Growth mindset and motivation: A study into secondary school science learning. *Research papers in education*, 32(4), 424-443. (2017).
- [16] May, D. R., Gilson, R. L., & Harter, L. M: The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of occupational and organizational psychology*, 77(1), 11-37. (2004).