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EVALUATION OF TECHNOPRENEUR BEHAVIOR OF FASHION VOCATIONAL HIGH SCHOOL STUDENTS

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Abstract

Technopreneur behavior refers to the traits, attitudes, and actions of an individual or group involved in technology-based entrepreneurship. Technopreneurship is a combination of the words "technology" and "entrepreneurship," and includes the application of technology and innovation in a business context. The purpose of this research is to develop an instrument that can measure the technopreneur behavior of Fashion Vocational High School students. This research is a development research with 4D models, namely Difine, Design, Development, and Development. The instrument was also piloted to 30 students of the 3 Kediri State Vocational High School. The results of the study stated that based on the criteria of CVR, correlation-total, CSO, and IMS, there were 2 items that did not meet so that the item had to be revised or discarded, while the other items were declared to meet the criteria. And the results of the instrument test stated that 3.33% of students had techopreneur behavior in the "high distinction" category, 83.3% in the "Distinction" category, and 13.3% in the "Credit" category.

Keywords: Camera Ready Paper, TEM Journal, Guideline.

INTRODUCTION

Vocational High Schools are designed to prepare students or graduates who are ready to enter the world of work and are able to develop a professional attitude in their field (Irwanto, 2022). With the skills they have, vocational high school graduates are expected to be able to enter the world of work immediately after completing their education. However, in reality, the open unemployment rate of Vocational High School graduates is still the highest compared to other educational TPTs. Data from the Central Statistics Agency (BPS) in 2023 regarding employment in Indonesia, especially for vocational school graduates, states that vocational high school graduates are the most unemployed, data from the Central Statistics Agency (BPS) reports the number of open unemployment rates as of February 2023. as many as 8.40 million people. Of this number, vocational school graduates are the largest compared to graduates from other levels of education.

The solution provided by Vocational High Schools to minimize the open unemployment rate by launching entrepreneurial activities for Vocational High School graduates. According to the profile of Vocational High School graduates, there are three main opportunities, namely being able to work directly, continue their studies, and be entrepreneurial (Husna, 2020). Graduates of Vocational High Schools who are entrepreneurs can be a driver of industrial and economic growth of the country (Raharjo & Ummaya, 2023). Currently, the business world is entering a new era, the fourth industrial revolution (IR 4.0), so the entrepreneurial world must also develop by using high technology in automation, the use of the internet, and smart technology. Entrepreneurship that is carried out by utilizing technology is called technopreneurship (Pratiwi et al., 2022).

Technopreneurship is carried out by utilizing creativity from the latest technology and innovation to develop the business field commercially. Technopreneurship can be focused on making technology so that it can be used to enlarge innovative business opportunities. The industry prioritizes technopreneurship to be able to compete in line with the growth of community demands. Technopreneurship has two aspects, namely the technological aspect and the entrepreneurial aspect (Kadiyono et al., 2019).

In preparing themselves as a technopreneur in the field of fashion, Fashion Vocational High School students must pay attention to the positive. By having the right technopreneur behavior, students can build successful and sustainable careers in the fashion field. Instilling technopreneur behavior in Fashion Vocational High School students is very important to help students prepare themselves to face challenges in the world of work.

There are several technopreneur behaviors that can be applied to prepare yourself as an entrepreneur in the fashion field, including: Creative and Innovative, Risk-Taking Courage, Visionary and Goal-Oriented, Able to Adapt Quickly, Focus on Quality and Customer Satisfaction, and Collaborative and Open to Input (Puji Hastuti, Agus Nurofik, Agung Purnomo, Abdurrozak Hasibuan, Handy Ariwibowo, Annisa Ilmi Faried, Tasnim, Andriasan Sudarso, Irwan Kurniawan Soetijono, Didin Hadi Saputra, 2021).

To improve the level of technopreneur behavior in Vocational High School students, it can be done by providing training and hands-on practical experience in creating new ideas, developing products and services, as well as marketing products and finding customers (Masyarakat et al., 2022). In addition, the school environment can also provide support and motivation for students to develop skills and behaviors as a technopreneur.

The level of technopreneur behavior of Vocational High School students can vary depending on the characteristics of the student (Agung & Mashuri, 2022), the school environment, and previous experience. In determining the level of technopreneur behavior in Fashion Vocational High School students, evaluation and observation must be carried out continuously to ensure that students continue to develop positive technopreneur behavior.

To find out the level of technopreneur behavior in Fashion Vocational High School students, it can be done in several ways of observation, interviews, assignments, and competitions in the field of business or fashion. So in choosing a technopreneur behavior instrument, it should be noted that the chosen instrument must be able to measure the behavior of technopreneurs thoroughly and accurately. In addition, the instrument must also be adapted to the characteristics of the student, the school environment, and the evaluation goals to be achieved.

METHODS

This research is a development research with a 4-D model. This model was developed by S. Thiagarajan, Dorothy S. Semmel, and Melvyn I. Semmel (1974: 5). The 4D development model consists of 4 main stages, namely: Define, Design, Develop and Disseminate. This method and model was chosen because it aims to produce products in the form of instruments to measure the level of technopreneiur behavior. The research subjects in this development research are 30 students of Fashion Design of State Vocational High School 3 Kediri Sidoarjo class XI.

Technopreneur behavior refers to the collection of attitudes, skills, and actions applied by a person in carrying out the role of a technopreneur (Oladejo et al., 2022). Technopreneur is a term that combines the words "technology" and "entrepreneur" (Diharjo, 2014). Therefore, technopreneur behavior includes the ability to combine technological innovation with an entrepreneurial spirit. The dimensions and indicators of technopreneur behavior are listed in Table 1 below.

Table 1: Technopreneur Behavior Indicators

Dimension	Indicator
Confident	Belief
	Independence
	Individualistic
	Optimism.
Be task- and result-oriented	Achievement
	Profit-oriented
	Strong push
	Energetic
	Diligent
	Hard Work and Initiative
Dare to take risks and love challenges	Dare to take risks Loves a challenge
Leadership	Have a mission
	Able to make strategic planning
	Integrity
	Ability to influence others
	Ability to set an example
	Decision-making skills
	Ability to communicate effectively
	Ability to develop a team
	Transparency
	Goal-oriented
Original	Innovative
	Creative
	Flexible
Future-oriented	Have a vision
	Have a perspective on the future

The validation of the instrument product was carried out by five experts with expertise in education and fashion and was tested on vocational school students. Instrument validation is carried out in three stages, namely the validation of the content of the instrument using the content validity ratio (CVR) method, item-total and reliability correlation, and fit-item analysis. The instrument is said to be suitable for use when it meets the following conditions: (1) CVR value ≥ 0.3; (2) the item-total correlation value ≥ 0.2 and the reliability value ≥ 0.6; and (3) in fit mean square (IMS) and outfit mean square (OMS) values of 0.5-1.5.

RESULT & DISCUSSION

The product developed is tested for feasibility with validity and product trials to find out the extent of entrepreneurial behavior of Fashion Vocational High School students. The product is in the form of a questioner that is tested to Vocational High School students.

Table 2: Results of CVR analysis, Correlatin Test Items, CSOs and STIs

Item	CVR	Total Item Correlation	OMS	IMS
1	1	0.6847	1.24	1.37
2	1	0.6923	1.27	1.31
3	1	0.6555	1.66	1.71
4	1	0.7022	1.22	1.28
5	1	0.7184	1.22	1.29
6	1	0.7947	0.86	1.00
7	1	0.6844	1.43	1.39
8	1	0.5967	1.41	1.36
9	1	0.3429	3.52	3.33
10	1	0.5978	1.14	1.19
11	1	0.4419	1.40	1.34
12	1	0.2939	1.66	1.60
13	1	0.4159	1.22	1.23
14	1	0.7164	1.70	1.71
15	1	0.7151	0.64	0.64
16	1	0.6673	1.08	1.00
17	1	0.7113	0.91	0.85
18	1	0.7222	1.29	1.34
19	0,8	0.5191	1.77	1.69
20	0,8	0.0894	3.31	3.00
21	1	0.3250	1.65	1.75
22	1	0.7280	1.38	1.54
23	1	0.6321	0.84	0.88
24	1	0.4340	1.51	1.53
25	1	0.5782	0.63	0.67
26	1	0.5693	0.87	0.92
27	1	0.6816	1.04	1.11
28	1	0.7965	0.47	0.50
29	1	0.6696	1.35	1.39
30	1	0.5120	1.56	1.42
31	1	0.1472	3.08	2.86
32	1	0.6681	0.91	0.95
33	1	0.8169	0.68	0.70
34	1	0.7959	0.64	0.66
35	1	0.6938	0.98	0.96
36	1	0.7101	0.93	0.96
37	1	0.7617	1.26	1.31
38	1	0.5392	0.70	0.74
39	1	0.8137	0.60	0.63
40	1	0.6213	0.94	1.06
41	1	0.6177	0.83	0.84
42	1	0.2959	2.39	2.24
43	1	0.7407	0.59	0.61
44	1	0.6469	0.75	0.72
45	1	0.4885	1.16	1.04
46	1	0.7457	0.51	0.53
47	1	0.7932	0.75	0.78
48	1	0.5396	0.66	0.76
49	1	0.8560	0.78	0.81
50	1	0.6491	1.03	1.11
51	1	0.7492	0.57	0.60
52	1	0.7212	0.56	0.57
53	1	0.7288	0.67	0.66
54	1	0.5261	0.59	0.71

Item	CVR	Total Item Correlation	OMS	IMS
55	1	0.3621	0.98	1.10
56	1	0.6838	0.87	0.88
57	1	0.7265	0.81	0.82
58	1	0.6229	1.08	1.06
59	1	0.6799	1.29	1.26
60	1	0.6080	1.09	1.12
61	1	0.6191	1.15	1.14
62	1	0.7311	0.76	0.79
63	0,8	0.6810	0.72	0.68
64	1	0.8584	0.30	0.33
65	1	0.8342	0.33	0.36
66	1	0.8129	0.38	0.39
67	1	0.7273	0.41	0.43
68	1	0.5639	0.71	0.66

The instrument has been validated by 5 experts. The instrument received a CVR assessment with a minimum value of 0.8 and a maximum value of 1. The minimum value for CVR is 0.3, so this proves that each item on all nine instruments can be used to measure constructs in the study.

Table 3: Item-Total Instrument Trial Correlation Results

Instruments	Number of Items	Total Item Correlation	Reliability
Technopreneurship Behavior	68	0,08 – 0,85	0.9755

Based on the content validity test, item-total correlation and reliability, and item fit analysis, Table 3 is prepared to easily conclude the items to be retained and revised/discarded.

Table 4: Results of Correlation of Item-Total, CSO, and IMS Trials of Technopreneur Behavioral Instruments

Items That Don't Meet the Criteria					Conclusion
No. Item	CVR	Item-Total Correlation	OMS	IMS	
3	1	0.6555	1.66	1.71	Maintained
9	1	0.3429	3.52	3.33	Maintained
12	1	0.2939	1.66	1.60	Discarded
14	1	0.7164	1.70	1.71	Maintained
19	0,8	0.5191	1.77	1.69	Maintained
20	0,8	0.0894	3.31	3.00	Discarded
21	1	0.3250	1.65	1.75	Maintained
28	1	0.7965	0.47	0.50	Maintained
31	1	0.1472	3.08	2.86	Maintained
42	1	0.2959	2.39	2.24	Maintained
64	1	0.8584	0.30	0.33	Maintained
65	1	0.8342	0.33	0.36	Maintained
66	1	0.8129	0.38	0.39	Maintained
67	1	0.7273	0.41	0.43	Maintained

Based on the results presented in Table 4, some items do not meet the criteria of CVR, total-correlation, CSO, and IMS so these items must be revised or discarded. In the technopreneur behavior instrument, there are 2 items, namely items no. 12 and 20. Meanwhile, there are no other items that do not meet the criteria of CVR, total-correlation, CSO, and IMS. Thus it can be concluded that the entire item can be retained and used as a research instrument.

The results of the instrument trial on 30 students of the State Vocational High School 3 Kediri can be observed in Table 5.

Table 5: Technopreneur Behavior Level of Fashion Vocational High School Students

Category	Number of Students	%
High Distinction	1	3,33
Distinction	25	83,33
Credit	4	13,33
Fail	0	0,00
Total	30	100

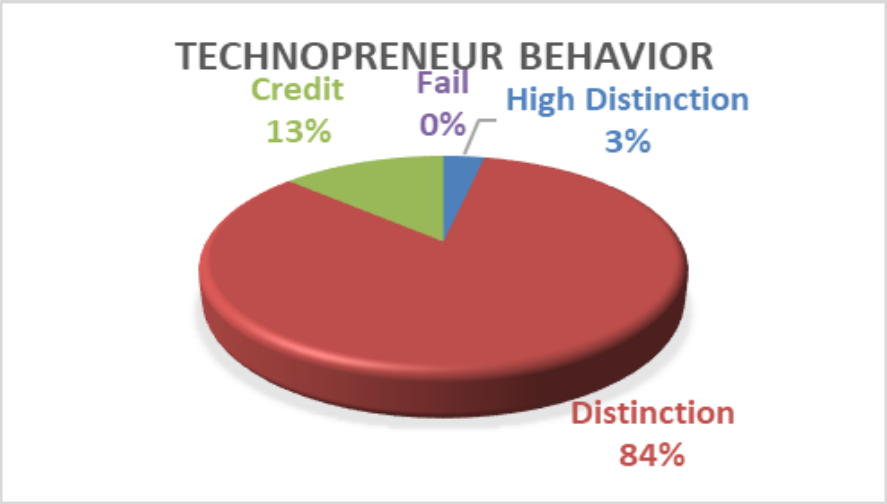

Figure 1: Technopreneur Behavior Level

DISCUSSION

In the discussion of the results of this study, it can be seen that the questionnaire instrument developed succeeded in measuring technopreneur behavior with good validity and reliability. These findings illustrate the success of designing questions that are relevant and sensitive to key aspects of technopreneurship behavior. A significant correlation with the associated variables indicates that the instrument is reliable in measuring the desired construct. In-depth data analysis yielded valuable insights into technopreneur behavior patterns, reinforcing the concepts proposed in the literature.

CONCLUSION

The feasibility of the Technopreneur Behavior instrument for Fashion Vocational School Students is carried out through the validation of the content of the instrument using the content validity ratio (CVR) method. In the Validation of the content of the instrument, validated by five validators, it was found that 16 items on the instrument got a CVR value of 1, so this proves that each item in the Technopreneur Behavior instrument can be used to measure the construct in the research.

The trial of the Technopreneur Behavior Instrument for Fashion Vocational School Students was carried out at SMK Negeri 3 Kediri with 3 subjects of Fashion Design class XI students. The results of the instrument test on 68 questions obtained a correlation score of 0.08 – 0.85 with a reliability of 0.9755. Based on the criteria of

CVR, total correlation, CSO, and IMS, there are items that do not meet so that the items must be revised or discarded. In the technopreneurship intention instrument, there are 2 items, namely items no. 12 and 20. Meanwhile, other items were declared to meet the criteria of CVR, total-correlation, CSO, and IMS. Thus it can be concluded that the entire item can be retained and used as a research instrument.

And the results of the instrument test conducted on 30 students of the State Vocational High School 3 Kediri, stated that 3.33% of students had techopreneur behavior in the "high distinction" category, 83.3% in the "Distinction" category, and 13.3% in the "Credit" category.

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