ATLANTIS
PRESS

Development and Validation of Instruments to Assess Student Work Readiness: An Indonesian Contexts

1st Sultoni*
dept. Educational Administration
Universitas Negeri Malang
Malang, Indonesia
sultoni.fip@um.ac.id

2nd Imam Gunawan
dept. Educational Administration
Universitas Negeri Malang
Malang, Indonesia
imam.gunawan.fip@um.ac.id

3rd Tri Novia Rosalinda
dept. Educational Administration
Universitas Negeri Malang
Malang, Indonesia
noviarosalinda10@gmail.com

Abstract—**Student work readiness is an essential issue in the education system of every country, including the education system in Indonesia. The purpose of this research is to develop a questionnaire instrument to measure student work readiness. The questionnaire consists of 21 items designed from the five dimensions of student work-readiness that we proposed (previous experience, maturity level, mental and emotional state, intelligence, and self-development efforts). The questionnaire developed in this research was tested on 107 students of the Universitas Negeri Malang, Indonesia. Data were analyzed with Pearson Product Moment correlation to test validity and Cronbach's Alpha to test reliability. The results conclude that the 21 items developed to have a high level of validity and reliability.**

Keywords—student work readiness, validity, reliability, Indonesian contexts

I. INTRODUCTION

It is a fact that many students are graduating during the current Covid-19 pandemic. Those who pass inevitably have to follow a new habit order or the new normal in looking for work. The difficulty of finding work during the ongoing pandemic is a major challenge for these graduates. Students will also face a tougher challenge to get a job after the Covid-19 pandemic, where everyone has to adapt to new habits. In addition, with other novice job seekers, they will also compete with workers affected by the pandemic who are also looking for new jobs.

Universities need to encourage their students to have more qualified abilities in competing in the job market [1]–[4], to get a decent first job and to be able to build a career in a company. This initiative is carried out as an effort by universities to support the Government of Indonesia in overcoming youth unemployment and achieving the Sustainable Development Goals in encouraging opportunities to find full and productive jobs that are decent for students.

Government currently, Indonesia is facing a high youth unemployment rate. Data from the Central Statistics Agency in February 2020 stated that the highest open unemployment rate came from the 15-24 year age group of 16.28%. In fact, the numbers from this group have always been at the top for the last 3 years. In addition, Indonesia's youth unemployment rate (age group 15-24 years) is also recorded to always be in the second highest position in Southeast Asia since two and a half decades ago after Brunei Darussalam.

Practically, this work readiness certainly brings new experiences and thinking concepts to students about work [5]. Universities through the Independent Campus Independent Learning Program (Merdeka Belajar Kampus Merdeka / MBKM) must actually prepare their students to be able to adapt to changes in the world of work. Bearing in mind, the mismatch between the skills needed by the company and those of job seekers is one of the factors causing the high youth unemployment rate. Participation in this program will give them a greater chance of successfully getting a decent first job and eventually can help them achieve better welfare.

For information, through this program, participants are invited to explore various important skills that employers need from job seekers and evaluate what skills they already have. In addition, they practice making a strong curriculum vitae and able to attract the attention of prospective employers [6]–[8]. Participants also participated in a job interview simulation to understand the importance of communicating their potential to the interviewer. During this exclusive educational series, students are accompanied by practitioners who are actively involved as mentors to share knowledge and inspiration [9]–[11]. The purpose

of this research is to measure the validity and reliability of the student work readiness questionnaire instrument.

II. METHOD

TABLE I.   GRID OF INSTRUMENTS FOR ASSESSING STUDENT WORK READINESS

No	Dimension	Item Number
1	Previous experience	1, 2
2	Maturity level	3, 4, 5, 6, 7, 8
3	Mental and emotional state	9, 10, 11, 12, 13
4	Intelligence	14, 15, 16, 17
5	Self-development efforts	18, 19, 20, 21

This study examines the validity and reliability of the student job readiness questionnaire instrument. We proposed five dimensions of student work readiness (previous experience, maturity level, mental and emotional state, intelligence, and self-development efforts) which were further developed into 21 items (Table 1). Each statement in the questionnaire is structured in a positive sentence, with four answer choices on a rating scale (strongly agree = 4, agree = 3, disagree = 2, strongly disagree = 1). The developed questionnaire was tested on 107 students of the Universitas Negeri Malang, Indonesia. Data were analyzed with Pearson Product Moment correlation to test validity and Cronbach's Alpha to test reliability. An item is valid if the probability value (α) < 0.05 and the instrument criteria is declared reliable if the ralpha value > rtable [12]–[15], and the rtable value for N = 107 is 0.195. The program used to analyze the data is IBM SPSS Statistics 24.

III. RESULT

The validity test using the correlation formula for each statement item shows that all values of < 0.05 (Table 2). Referring to the results of the validity test, it was concluded that all items developed to measure student work readiness had high validity. This means that the items that have been developed are valid for measuring student work readiness.

The reliability test found that Cronbach's Alpha value was 0.853 (Table 3), meaning ralpha = 0.853 > rtable = 0.195. The results of Cronbach's Alpha if Item Deleted test (Table 4) found that all values of > 0.195. So it can be concluded that the items developed have high reliability. This means that the items that have been developed have a high level of consistency in measuring student work readiness.

Furthermore, the data was tested with the correlation of each dimension of student work readiness. The results of the correlation test for each dimension of student work readiness are presented in Table 5. The results show that: the dimensions of previous experience and maturity level have a positive

relationship of 0.311 with a significance of 0.01; dimensions of previous experience and mental and emotional states have a positive relationship of 0.369 with a significance of 0.01; dimensions of previous experience and intelligence have a positive relationship of 0.210 with a significance of 0.05; dimensions of previous experience and self-development efforts have a positive relationship of 0.211 with a significance of 0.05; the dimensions of maturity level and mental and emotional state have a positive relationship of 0.545 with a significance of 0.01; the dimensions of maturity level and intelligence have a positive relationship of 0.567 with a significance of 0.01; dimensions of maturity level and self-development efforts have a positive relationship of 0.498 with a significance of 0.01; the dimensions of the level of mental and emotional states and intelligence have a positive relationship of 0.418 with a significance of 0.01; the dimensions of the level of mental and emotional states and self-development efforts have a positive relationship of 0.512 with a significance of 0.01; and the dimensions of intelligence and self-development efforts have a positive relationship of 0.569 with a significance of 0.01. This means that the five dimensions of work readiness developed have a positive relationship and are theoretically acceptable.

IV. DISCUSSION

The three main general activities of a student are: (1) studying and organizing; (2) special time for personal and friends' needs (me time); and (3) working time (some students have started their internship or work) [16], [17]. Maybe there are students who only study and have me time, and there are also students who have to work and study [18]–[20]. In Indonesia, it is rare for students to do internships. Actually, internships are the best way to gain work experience [21], [22], better understand the problems in business (rather than just learning from books or in class). A student who has an internship, has a greater chance of being accepted for a job, after graduating from college.

It is important for every student to be able to manage time (time management), because humans are not machines that can do work simultaneously (multi-tasking). By nature, the human body is only designed to do one thing at a time. It's not easy for a freshman to study (especially a student who is studying outside the city, living alone, living in a dormitory) to live independently. Of course, time management and discipline are needed.

As a student to be ready to work, he must know and set priorities by making a list of activities, starting from lectures, work (internship) and me time. Based on the list, students can make a regular schedule. Students must ensure that they stay focused and prioritize their studies, because the main obligation of a student is to study and graduate [23]–[27]. So that college grades remain high, work results are maximized and can enjoy time, there are five things that must be carefully

considered by students, namely: (1) recognize your limits; (2) manage time; (3) college is a priority; (4) adaptive ability; and (5) choose an internship job that fits the time quota.

Recognize your limits, it is very natural for a student to have extra enthusiasm in any case, because he is still very young. No wonder there is a student who joins two campus organizations or even more. Actually, this condition is a good condition, because many things and good experiences were obtained, especially in terms of communicating. However, for students who take part in an internship, it is better to choose the organization. Know your limits and focus on the role you are already playing [28].

Manage time, recognize your own limitations are closely related to time management. When it comes to time, the human body is designed to get at least 8 hours of rest a day. Thus, a student still has 16 hours per day to be active. Students need to be good at dividing their time, for lectures, internships and personal time (me time). Limit yourself from adding roles, if necessary, reduce roles and see how much time for yourself.

College is a priority, a student sometimes forgets his identity as a student, for example, there are times when a student gets an internship offer with a fairly decent salary, so without thinking he will skip college. Students need to realize that college is a priority and

internship is a side activity [29]–[31]. However, students must remain focused and responsible for their choices. Students must ensure that they stay focused and prioritize their studies.

Adaptive ability, as social beings, humans are required to have the ability to adapt in any situation. Good adaptability will make students able to carry out various roles well. There may be times when students are faced with an uncomfortable situation [32]–[34], for example, there is a sudden change in the class schedule, suddenly there is a meeting with a client, and so on. Ability to adapt to change and be flexible is required [35]–[37]. If students face such a situation, they can do several options. One of them is to rearrange the work plan for the day.

Choose an internship job that fits the time quota, as explained in the previous point, as a student the main focus is learning. If students want an internship, you should choose a job that offers high flexibility. For example, students do not have to go to the office every day or work 8 hours a day. Students get facilities to work at home (remote working) and so on. During internship students, students work to study, not to get a big salary. Choose a job that provides lots of opportunities to learn a lot, not a company that offers big salaries (and wastes student time).

TABLE II.   VALIDITY OF STUDENT WORK READINESS ASSESSMENT INSTRUMENTS

No	Statement	Pearson Correlation	Sig.	Note
1	I am sure that attending university will make it easier to find a job	.368**	.000	Valid
2	I am sure that the knowledge and skills I gain will make it easier for me to complete the job	.440**	.000	Valid
3	I am in choosing a job considering the abilities I have	.389**	.000	Valid
4	I accept other people's opinions as input for self-improvement	.510**	.000	Valid
5	I am interested in jobs that require high accuracy and concentration	.470**	.000	Valid
6	I believe concentration is a requirement to be able to work well	.522**	.000	Valid
7	I am happy if someone reminds me when I make a mistake at work	.549**	.000	Valid
8	I try to be patient when dealing with coworkers who make me angry	.408**	.000	Valid
9	I respect other people to be able to adjust to the new environment	.537**	.000	Valid
10	I easily adapt to the culture and order in a new environment	.494**	.000	Valid
11	I am responsible for the work I do	.578**	.000	Valid
12	I will correct my work if I make mistakes in my work	.529**	.000	Valid
13	I have to be on time to finish work	.475**	.000	Valid
14	I always read books related to my field of expertise	.437**	.000	Valid
15	I always follow developments in my field of expertise through various media	.485**	.000	Valid
16	I am ready to work wherever I am placed, both outside the office and inside the office with the provisions I got at university	.543**	.000	Valid
17	My knowledge and skills make it easier to adapt to work situations	.629**	.000	Valid
18	I am in a group assignment trying to do my job optimally	.635**	.000	Valid
19	I am happy to participate in training according to my field of expertise	.602**	.000	Valid
20	I always improve my knowledge and skills in order to work optimally	.604**	.000	Valid
21	I increase my knowledge outside of school	.436**	.000	Valid
**. Correlation is significant at the 0.01 level (2-tailed)				

TABLE III. RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
.853	21

TABLE IV. ITEM-TOTAL STATISTICS

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Note
it_1	67.74	30.176	.286	.852	Reliable
it_2	67.63	29,651	.359	.850	Reliable
it_3	67.69	29,706	.291	.853	Reliable
it_4	67.61	29,316	.437	.847	Reliable
it_5	67.97	29,461	.391	.849	Reliable
it_6	67.65	29,153	.448	.846	Reliable
it_7	67.56	29,211	.483	.845	Reliable
it_8	67.86	29,952	.328	.851	Reliable
it_9	67.58	29,265	.469	.846	Reliable
it_10	67.87	29,473	.422	.847	Reliable
it_11	67.63	29.010	.515	.844	Reliable
it_12	67.62	29,201	.458	.846	Reliable
it_13	67.60	29.167	.386	.849	Reliable
it_14	68.01	29,689	.357	.850	Reliable
it_15	67.94	29,450	.410	.848	Reliable
it_16	67.97	28,537	.456	.846	Reliable
it_17	67.78	28,610	.568	.842	Reliable
it_18	67.71	28,717	.578	.842	Reliable
it_19	67.80	28,706	.537	.843	Reliable
it_20	67.71	28,679	.539	.843	Reliable
it_21	67.88	29,749	.357	.850	Reliable

TABLE V. THE CORRELATIONS OF INDICATORS

	Min	Max	Mean	SD	1	2	3	4	5
1. Previous experience	4	8	6.92	0.88	-	.311**	.369**	.210*	.211*
2. Maturity level	16	24	20.50	1.84		-	.545**	.567**	.498**
3. Mental and emotional state	13	20	17.41	1.73			-	.418**	.512**
4. Intelligence	10	16	12.86	1.51				-	.569**
5. Self-development efforts	9	16	13.46	1.53					-
**. Correlation is significant at the 0.01 level (2-tailed)									
*. Correlation is significant at the 0.05 level (2-tailed)									

V. CONCLUSION

This research concludes that the student job readiness questionnaire has high validity and reliability. Five dimensions of student work readiness have a positive correlation. This means that the questionnaire that has been developed in this research can be used to measure student work readiness. Student work readiness is an important issue to discuss because it is related to the long-term impact on the country's economic growth. Therefore, we need a curriculum that is able to adapt to the needs of the workforce and provide adequate skills to students.

REFERENCES

[1] Sultoni, I. Gunawan, and T. N. Rosalinda, "Upaya mahasiswa dalam menyiapkan diri masuk ke dunia kerja: Suatu kajian deskriptif," in Prosiding Seminar Nasional Pendidikan, Tema: Mendidik Cerdas Generasi Digital, 2018, pp. 143–148.

[2] Sultoni, I. Gunawan, and F. D. Pratiwi, "Perbedaan motivasi belajar mahasiswa antara sebelum dan sesudah mengikuti pelatihan motivasional," Ilmu Pendidik. J. Kaji. Teor. dan Prakt. Kependidikan, vol. 3, no. 1, pp. 115–119, Oct. 2018.

[3] A. D. Wardani et al., "Subject teacher deliberation: Role and functions in school management," in Proceedings of the 1 st International Conference on Information Technology and Education (ICITE 2020), 2020, pp. 720–724.

[4] I. Gunawan, Pengembangan model pembelajaran kooperatif berbasis lesson study di perguruan tinggi (upaya meningkatkan keaktifan dan hasil belajar peserta didik). Malang: Universitas Negeri Malang, Penerbit UM Press, 2018.

[5] I. Gunawan et al., "Pengaruh gaya kepemimpinan, kemampuan manajerial, efikasi diri, dan prestasi belajar terhadap kesiapan kerja mahasiswa," JMSP J. Manaj. dan Supervisi Pendidik., vol. 4, no. 1, pp. 126–150, 2019.

[6] A. Nurabadi, Sucipto, I. Gunawan, and Y. L. Sari, "The application of informal supervision to improve the quality of learning in laboratory schools," in Proceedings of the 4th International Conference on Education and Management (COEMA 2019), Jan. 2019, pp. 78–81.

[7] I. Gunawan, "Pendidikan anak usia dini: Teori dan aplikasinya," in Seminar Nasional Revitalisasi Manajemen Pendidikan Anak Usia Dini (PAUD) di Era Revolusi Industri 4.0, 2019, pp. 116–120.

[8] A. D. Wardani et al., "How teachers optimize the role of classroom administration in learning?," in Proceedings of the 6th International Conference on Education and Technology (ICET 2020), 2020, pp. 422–426.

[9] N. W. N. Setya et al., "Development of student leadership variables instruments: Validity and reliability analysis," in Proceedings of the 1 st International Conference on Information Technology and Education (ICITE 2020), 2020, pp. 541–545.

[10] I. Gunawan, "Instructional management in Indonesia: A case study," J. Arts, Sci. Commer., vol. 8, no. 1, pp. 99–107, 2017.

[11] B. A. Pambudi and I. Gunawan, "The effect of learning leadership, academic supervision, and teacher skills on teacher performance effectiveness," in Proceedings of the 1 st International Conference on Information Technology and Education (ICITE 2020), 2020, pp. 1–4.

[12] I. Gunawan, Pengantar statistika inferensial. Jakarta: Rajawali Pers, 2016.

[13] I. Gunawan, Introduction to inferential statistics. Jakarta: Rajawali Pers, 2016.

[14] S. Hadi, I. Gunawan, and J. Dalle, Statistika inferensial: Teori dan aplikasinya. Jakarta: Rajawali Pers, 2018.

[15] I. Gunawan, Statistika untuk kependidikan sekolah dasar. Yogyakarta: Penerbit Ombak Yogyakarta, 2013.

[16] I. Gunawan et al., "Prestasi belajar mahasiswa fungsionaris UKM KSR PMI Unit Universitas Negeri Malang," Ilmu Pendidik. J. Kaji. Teor. dan Prakt. Kependidikan, vol. 2, no. 2, pp. 171–177, Dec. 2017.

[17] D. N. Sari, I. Gunawan, and A. Imron, "Relationship between managerial skills and morale with teacher performance: A regression analysis," in Proceedings of the 6th International Conference on Education and Technology (ICET 2020), 2020, pp. 125–129.

[18] I. Gunawan, "Pengaruh kepemimpinan transformasional dan kepuasan kerja terhadap perilaku kewargaan organisasi guru Sekolah Dasar Negeri Kecamatan Kras Kabupaten Kediri," Prem. Educ. J. Pendidik. Dasar dan Pembelajaran, vol. 5, no. 1, pp. 59–81, 2015.

[19] [Kusmintardjo and I. Gunawan, Manajemen layanan khusus. Malang: Universitas Negeri Malang, Penerbit UM Press, 2017.

[20] Sultoni, I. Gunawan, and T. N. Rosalinda, "Pengaruh pembentukan tim dan kepemimpinan spiritual terhadap motivasi diri mahasiswa," JMSP J. Manaj. dan Supervisi Pendidik., vol. 2, no. 3, pp. 210–216, 2018.

[21] A. Prastiawan et al., "Office management of educational institutions: Theories and applications," in Proceedings of the 5th International Conference on Education and Technology (ICET 2019), 2019, pp. 758–762.

[22] R. B. Sumarsono et al., "Training on the implementation of cooperative learning models as an effort to improve teacher's performance," in Proceedings of the 4th International Conference on Education and Management (COEMA 2019), Jan. 2019, pp. 259–263.

[23] I. Gunawan and D. D. N. Benty, Manajemen pendidikan: Suatu pengantar praktik. Bandung: Alfabeta, 2017.

[24] D. E. Kusumaningrum, D. D. N. Benty, and I. Gunawan, Manajemen Peserta Didik. Malang: Universitas Negeri Malang, Penerbit UM Press, 2017.

[25] D. E. Kusumaningrum, D. D. N. Benty, and I. Gunawan, Manajemen peserta didik: Suatu pengantar. Jakarta: Rajawali Pers, 2019.

[26] A. D. Wardani et al., "Student learning motivation: A conceptual paper," in Proceedings of the 2nd Early Childhood and Primary Childhood Education (ECPE 2020), 2020, pp. 275–278.

[27] I. Gunawan, Landasan pendidikan: Teori, konteks, dan isu penyelenggaraan pendidikan. Malang: Universitas Negeri Malang, Penerbit UM Press, 2020.

[28] I. Gunawan, Kepemimpinan pendidikan: Suatu pengantar. Malang: Universitas Negeri Malang, UM Press, 2018.

[29] C. M. Shanti, I. Gunawan, and A. Y. Sobri, "Relationship of school visionary leadership and organizational climate with teacher performance," in Proceedings of the 1 st International Conference on Information Technology and Education (ICITE 2020), 2020, pp. 624–629.

[30] D. D. N. Benty et al., "Validitas dan reliabelitas angket gaya kepemimpinan mahasiswa," JAMP J. Administrasi dan Manaj. Pendidik., vol. 3, no. 3, pp. 262–271, 2020.

[31] I. Bafadal, I. Gunawan, A. Nurabadi, and Juharyanto, "School performance development: Measurement of variables affected by the moral debate program," in Proceedings of the 6th International Conference on Education and Technology (ICET 2020), 2020, pp. 201–205.

[32] A. Prastiawan et al., "School leadership skills in educational institutions," in Proceedings of the 6th International Conference on Education and Technology (ICET 2020), 2020, pp. 438–441.

[33] N. L. S. Nuraini et al., "Social media in the classroom: A literature review," in Proceedings of the 6th International Conference on Education and Technology (ICET 2020), 2020, pp. 264–269.

[34] I. Gunawan, Landasan dasar pendidikan. Malang: Universitas Negeri Malang, Penerbit UM Press, 2017.

[35] A. Nurabadi, J. Irianto, I. Bafadal, J. Juharyanto, I. Gunawan, and M. A. Adha, "The effect of instructional, transformational and spiritual leadership on elementary school teachers' performance and students' achievements," J. Cakrawala Pendidik., vol. 40, no. 1, pp. 17–31, 2021.

[36] N. Y. Rizky, I. Gunawan, and A. D. Wardani, "Compensation and performance of educators in schools: A qualitative study," in Proceedings of the 6th International Conference on Education and Technology (ICET 2020), 2020, pp. 259–263.

[37] N. N. Sukawati, I. Gunawan, A. G. Prayoga, and A. D. Wardani, "Teacher personality, interpersonal relationships, performance, and professionalism in the learning process: A qualitative study," in Proceedings of the 6th International Conference on Education and Technology (ICET 2020), 2020, pp. 250–254.