

# Motivation and Change Readiness for Educational Digital Acceleration Based on College Students' Perspectives

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## ABSTRACT

The acceleration of digital technology development is supported by the Covid-19 pandemic, due to being educationally characterized by increased internet usage. This has reached more than 40% since the implementation of the work and study-from-home policy. Therefore, this study aims to evaluate the motivation and change readiness for educational digital acceleration, based on the perspective of college students during the COVID-19 pandemic. This quantitative report involved 158 participants, which were engaged in online learning in West Java, Indonesia. In this case, the sample was randomly obtained and dominated by first-year students, with the questionnaire data showing that motivation had a direct relationship with Change Readiness by 20.3%. The results also indicated the influence of other external factors at 79.7%. Subsequently, the measurement of Change Readiness confirmed that only 2 (two) dimensions were included in the optimal category, namely adaptability and tolerance for ambiguity. Irrespective of this result, the other 5 (five) dimensions obtained were still not optimal.

Keywords: Motivation, Change Readiness, Digital Acceleration

## 1. INTRODUCTION

The Corona Virus Disease (Covid-19) has tremendously impacted various sectors in Indonesia since its detection in 2020, including the educational field. To suppress the spread of this disease, the Government established a policy of studying and working at home, commonly known as WFH (Work From Home). This was in line with the implementation of similar policies in other affected countries. In education, the most impacted phenomenon is the shift from face-to-face learning activities to online literacy, which demands adaptation to digital media and distance teaching techniques. The adjustment of approach and assignment for the tasks equivalent to the appropriate credits is also carried out based on the Circular of the Ministry of Education and Culture of the Directorate General of Higher Learning. In addition, the Ministry of Education and Culture, as well as Research and Technology reportedly provided some assistance to support online learning, such as (i) Quota subsidy assistance, (ii) Single Tuition Assistance (UKT), (iii) Wage subsidies for

education and educational personnel (non-civil servants), and (iv) Budget relocation to increase the capacity of teaching hospitals and medical faculties.

Irrespective of these conditions, online learning still possesses both strengths and weaknesses, with teachers and students encountering multiple challenges. The advantages of online education emphasize additional references from the internet, easy access to materials, varied literacy (audio, video, text, images), new applications, and creative learning approaches. However, some problems are often encountered with technological devices, internet networks, electricity disturbances, application mastery, interaction, and assignment plagiarism (Deutsch, 2020). According to Agustina & Kurniawan (2020), self-concept and social support were important factors in encouraging student learning motivation. Anangsetyo et al. (2021) also showed an increase in students' learning comprehension. For attention, understanding, ability, motivation, and material acceptance were categorized as good learning processes. This indicated that online education provided a learning environment encouraging increased students' knowledge and understanding.

## **2. LITERATURE REVIEW**

### **2.1. Motivation**

The influential dimensions of learning include feelings, emotions, attitudes, and motivations (Chaffar & Frasson, 2012). Motivation is an essential aspect of helping educators to improve individual learning (Williams & Williams, 2011). This shows that learning becomes easy when individuals are motivated for specific reasons (Atma et al., 2021). In this case, teachers or facilitators need to play challenging roles, as well as use various teaching methods and strategies to arouse the interest of their students. According to Vărășteanu & Iftime (2013), teachers should always be aware of motivation and encouragement, as the key to active individual learning. Various pedagogical approaches also need to be applied in educational procedures. Besides the eradication of students' boredom with the learning process, the application of multiple educational methods subsequently ensures motivation and improves their performances (Atma et al., 2021).

Based on Cheung & Kwan, (2021), two types of goals were found to motivate individuals toward achievements, especially the acquisition of academic abilities (Anderman & Maehr, 1994; Kaplan & Maehr, 2002). The first category was the mastery goals, which emphasized the acquisition of new abilities and the learning process (Ames & Archer, 1988). Meanwhile, the second category was the performance goals, whose high competent level emphasized the outperformance of others (Ames & Archer, 1988). Irrespective of these conditions, a weakness was found in this category, as the public experimental objectives did not precisely capture individual opinions on the motivational relevance of changing learning methods. This proved that the strength of the relationship between one type of goal and its motivation emphasized the perceived significance of the two categories (Cheung & Kwan, 2021).

### **2.2. Change Readiness**

Change is a process continuously occurring in every developing organization. This shows that climate change is beneficial for the success of a company. According to Haffar et al. (2014), organizations need to focus on individual change readiness, to adapt to the transformations of provided processes/products. However, the capacity and willingness to accept circumstantial and procedural changes were equally important (Dalton & Gottlieb,

2003). Change readiness is the capacity to initiate and resist transformation in various patterns, to achieve benefits, reduce risks, and maintain performance (Lewin in (Iqbal & Asrar-ul-Haq, 2018). In this case, the individual acceptance of change and readiness are considered internal dispositions, which produce behaviour to form or become the opposition to transformation (Smollan, 2011). Readiness to change is also characterized as a set of beliefs, intentions, and attitudes, regarding the extent to which transformation is required (Rafferty et al., 2013; Shah et al., 2017). This involves the transition of beliefs into action, subsequently representing an attitudinal indicator of positive change (Rafferty et al., 2013).

Any organization with growth and development potential also need to be able to accept and embrace change. When a transformation occurs in an organization, the readiness of the organizational members requires related beneficial knowledge for effective implementation and practices (Rusly et al., 2012). Based on Holt et al., (2007), a Change Readiness rating scale was created for individuals with multidimensional components, including self-efficacy, difference, as well as personal and organizational valences. For the implementation of change, the critical role identification of each person is often very essential. This is because individual change readiness leads to the organizational transformation of creative ideas, with subsequent decisions producing effective results (Armenakis & Harris, 2002). Moreover, the readiness for change significantly influenced the success of knowledge acquisition (Valmohammadi & Amidi, 2020). In this analysis, a change readiness assessment having seven dimensions obtained from Associate Professor T.J. Jenny at Purdue was used. These included resourcefulness, adaptability, optimism, self-confidence, adventure, tolerance for ambiguity, and passion/drive (Robert Kriegel, 2008). A Change Readiness Assessment commonly contains 35 items, to measure employee transformation willingness.

### **2.3. Motivation for Change Readiness**

Several test and experimental tools have reportedly linked motivation and change readiness. For example, the American Society on Aging and Consultant Pharmacists Foundation stated that motivation was a key factor in a successful behavioural change, due to increased adherence to chronic therapy (World Health Organization, 2003). Moreover, the Change Readiness Index rapidly assesses an individual's present motivational state on the transformation of a specific behaviour. This provides a basis for motivation-based treatments, to induce behavioural change, such as motivational interviews. According to Ceccarini et al. (2015), the general quality of life and well-being was highly recommended to improve health, based on the assessment of motivation and readiness for rapid change in people seeking significant adjustments in lifestyle behaviour. Heather et al. in Borsari et al, (2009) also used the Readiness to Change Questionnaire (RTCQ) to measure participants' motivation or willingness towards transforming their present behavioural patterns. Based on these theoretical explanations, the data obtained were then described in a questionnaire, to measure motivation for change readiness. The formulated hypothesis also stated that motivation affected Change Readiness.

## **3. STUDY METHOD**

The participants involved in this study were the students practicing online learning during the COVID-19 pandemic, totalling 158 people. Based on the need suitability, an accidental sampling technique was used for selection. The analysis also included the independent and dependent variables, which contained Motivation (X) and Change Readiness (Y),

respectively. Using the IBM SPSS Statistics Viewer software, this experiment was carried out with a simple regression analysis test, through the following stages,

1. Validity Test, to measure whether or not the questionnaire was distributed to 158 samples.
2. Reliability test, to measure the reliability of the questionnaire distribution. The recapitulation data are used for filling in the participants' questionnaires.
3. Normality test, to determine whether the sample data originates from a normally-distributed population, using the Kolmogorov-Smirnov analysis.
4. Simple Linear Regression, to determine the influence between Motivation (X) and Change Readiness (Y).

## 4. RESULTS

### 4.1. Validity Test

Data were declared valid when  $r\text{-count} > r\text{-table}$ . Using the SPSS software, Table 1 shows the analytical results of the validity test.

Table 1. Questionnaire Validity Test

No	Item	r	No	Item	r
1	Item_1	0.350	33	item_33	0.498
2	Item_2	0.279	34	item_34	0.267
3	Item_3	0.316	35	item_35	0.614
4	Item_4	0.322	36	item_36	0.355
5	Item_5	0.402	37	item_37	0.460
6	item_6	0.555	38	item_38	0.456
7	item_7	0.483	39	item_39	0.274
8	item_8	0.523	40	item_40	0.335
9	item_9	0.450	41	item_41	0.235
10	item_10	0.339	42	item_42	0.462
11	item_11	0.427	43	item_43	0.176
12	item_12	0.464	44	item_44	0.255
13	item_13	0.474	45	item_45	0.595
14	item_14	0.466	46	item_46	0.623
15	item_15	0.470	47	item_47	0.566
16	item_16	0.374	48	item_48	0.312
17	item_17	0.465	49	item_49	0.418
18	item_18	0.399	50	item_50	0.493
19	item_19	0.275	51	item_51	0.633
20	item_20	0.395	52	item_52	0.435
21	item_21	0.296	53	item_53	0.578
22	item_22	0.277	54	item_54	0.444
23	item_23	0.382	55	item_55	0.219
24	item_24	0.585	56	item_56	0.493
25	item_25	0.501	57	item_57	0.463
26	item_26	0.497	58	item_58	0.280
27	item_27	0.383	59	item_59	0.564
28	item_28	0.372	60	item_60	0.282

29	item_29	0.383	61	item_61	0.474
30	item_30	0.201	62	item_62	0.162
31	item_31	0.386	63	item_63	0.242
32	item_32	0.396	64	item_64	0.167

Based on Table 1, all variables had an r-value above the critical  $r$  ( $> 0.1562$ ). This indicated that all the variables were adequately valid.

#### 4.2. Reliability Test

This aims to measure the reliability of the questionnaire distribution, indicating that the results have no significant difference range, although the attributes of the instrument were severally provided to different participants. The test was carried out using the SPSS software, with the data declared to be reliable when the Cronbach's Alpha value is  $> 0.70$  (Sufficient Reliability). Table 2 shows the analytical results of the reliability test.

Table 2. Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.912	64

According to Table 2, the Cronbach's Alpha value was 0.912 and more significant than 0.70, as the limit of sufficient reliability. This proved that the questionnaire was very reliable as a data collection tool, with all tests consistently having strong reliability due to the Cronbach's Alpha results being more than 90%.

#### 4.3. Normality test

This shows whether or not the sample data originates from a normally-distributed population. With a good regression model often having a normally-distributed residual value, SPSS software was used to test for normality through the Kolmogorov-Smirnov analysis. The analytical results of these tests are shown in Table 3.

Table 3. Normality Test  
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		159
Normal Parameters <sup>a,b</sup>	Mean	0.0000000
	Std. Deviation	15.66047159
Most Extreme Differences	Absolute	.055
	Positive	.055

	Negative	-.038
Test Statistic		.055
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

- a) Test distribution is Normal.  
b) Calculated from data.  
c) Lilliefors Significance Correction.  
d) This is a lower bound of the true significance.

Based on Table 3, the significance value was 0.200, which was more relevant than 0.05. This showed that the residual value in this report was normally distributed.

#### 4.4. Regression Test

Table 4 shows the multiple linear regression model of the Motivation variable (X) on Change Readiness (Y).

Table 4. Regression Test

Model Summary <sup>b</sup>						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	
1		.451 <sup>a</sup>	.203	.198	16.71027	
a. Predictors: (Constant), Motivation b. Dependent Variable: Change Readiness						
ANOVA <sup>a</sup>						
Model		Sum of Squares	dF	Mean Square	F	Sig.
1	Regression	9871.511	1	9871.511		
	Residual	38749.559	157	246.812	39.996	.000 <sup>b</sup>
	Total	48621.069	158			
a. Dependent Variable: Change Readiness b. Predictors: (Constant), Motivation						
Coefficients <sup>a</sup>						
Model		Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	89.189	9.825		9.078	.000
	Motivation	.590	.093	.451	6.324	.000
a. Dependent Variable: Change Readiness						

From Table 4, the R-value (symbol of the correlation coefficient value) was 0.451, indicating that the relationship between the two variables was in the medium category. The obtained coefficient of determination value was also 20.3%, proving that motivation had a contribution effect of 20.3% on change readiness (Y), with the remaining 79.7% influenced

by other external factors. This showed that the created regression model exhibited the interactions of the independent and dependent variables, which were quite related.

Based on the ANOVA table, the value of Sig. = 0.000, indicating its smaller representation than the significant criterion of 0.05. This confirmed that the regression equation model was significant, therefore, the LRM (linear regression model) meets the linearity criteria. In Table 4, the regression equation model obtained with constant and variable coefficients was  $Y = 89.189 + 0.590X$ , indicating that higher motivation (X) caused an increased Change Readiness (Y). The interpretation of the regression equation is shown as follows:

a. *Constant (a)*

When Motivation (X) has a value of zero, then Change Readiness (Y) = 89.189.

b. *Motivation (X) towards Change Readiness (Y)*

The coefficient value for the X = 0.590 and is positive, indicating that Motivation and Change Readiness had a unidirectional relationship. This proved that the Change Readiness (Y) increased by 0.590 for every one-unit elevation in Motivation (X), with the assumption that other independent variables were fixed.

From the literature testing related variable, such as motivation, similar results were observed. These were accompanied by a significant positive effect of motivation and job satisfaction on organizational commitment and work involvement (Manalo, Castro and Uy, 2020). This provides an influential overview of the motivational variables of an organization. These results were in line with the influential analysis showing the positive contribution of motivation to change readiness in the educational sector.

#### 4.5. Change Readiness Measurement

The assessment of students' change readiness used some measuring dimensions in encountering bold learning during the COVID-19 pandemic. These included resourcefulness, adaptability, optimism, self-confidence, adventure, tolerance for ambiguity, and passion/drive (Robert Kriegel, 2008). From the assessment results, only 2 (two) dimensions were included in the optimal category, namely adaptability, and tolerance for ambiguity. However, the remaining 5 dimensions were not optimal. This showed that the participants needed the encouragement of supporting factors, to reach the optimal level forming the dimension of change readiness. These results were relevant to the urgency of online change since the COVID-19 pandemic, where digital acceleration was observed as a pattern of proactive communication and learning. In this case, both students and lecturers experienced similar challenges, namely technology adaptability and communication disruptions. From these descriptions, the assessments showed the participants' optimal adaptability level based on two elements, namely flexibility and resilience. This emphasized the continuous confrontation of subsequent digital challenges.

An "over" condition was also found in other cases, regarding the change readiness variables such as the "resourcefulness" and "passion/drive" implementations in the company's HR (Novel, 2019). This indicated the observation of different results from distinguished conditions, especially when the present situations were related to the COVID-19 pandemic mentally affecting the students. In addition, other studies (even in different sectors) showed that adaptive leadership aspects were important for innovation (Coulombe, 2015). This was in line with the individual communication and transaction efforts used in confronting the challenges of the pandemic, as shown in the assistance of innovation and

digital media interaction. The uncertainty emphasizing the end period of the COVID-19 pandemic was also a challenge for digital acceleration, as policies continuously and effortlessly provided comfort for the community. Bold learning subsequently continued with the continuous development of learning innovations, which were equipped with educational support tools. Based on the assessments obtained, the dimension of tolerance for ambiguity showed an optimal level, indicating that participants accepted dynamic changes. This confirmed that the only certainty around change emphasized the creation of uncertainty. In this case, the other dimensions were likely not ignored at a suboptimal level. This was because all the dimensions supported the effectiveness of change in an organization or group (Novel, 2019). Therefore, optimization on other dimensions is very essential in dealing with digital learning changes.

## 5. CONCLUSION

Based on the results, motivation had a unidirectional relationship with Change Readiness (Y) regarding the validity test. It also had a contributing effect on Y by 20.3%, with the remaining 79.7% being influenced by other external factors. Meanwhile, change readiness showed that the results were not optimal in all its dimensions, as only adaptability and tolerance for ambiguity were observed at an appropriate level.

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