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## SECTIONS Model Analysis for Pre-service English Teachers' Media Selection in Pandemic Covid 19

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The development of technology-based learning cannot replace the teacher's role as an educator, but the teacher who does not want to learn technology, the teacher will be replaced. During the COVID-19 pandemic and the digital era of technology, it provides opportunities for teachers to develop creative ideas in the use of online learning media. This article aims to analyze the selection of e-learning media using the SECTIONS model for pre-service teachers. The Structural Equation Model (SEM) approach was used to analyze the relationship between components of SECTIONS model and media selection variable. The number of participants in this study were 200 pre-service English teachers in the Institut Agama Islam Negeri Syekh Nurjati, Indonesia. The results showed that there was a significant effect between components of SECTIONS model and selection of e-learning media. The SECTIONS model is effective and efficient for selecting English e-learning media. Through the SECTIONS model, it can minimize the negative impacts caused by incorrectly determining e-learning media.

Keywords: SECTIONS, e-learning media, selections, teaching, learning

### INTRODUCTION

All sectors of human life are affected by the COVID-19 pandemic. One of them is education system (Daniel, 2020). Nugraha et al. (2021) said the education is an important need for the sustainability of human life. However, education must continue, even though students are at home. The solution is that educators are required to design learning media as innovations by utilizing online media. For example, Jogezaï et al. (2021) said that in some developing countries using social media in learning.

The development of e-learning media is very rapid. The results of metadata using Harzing's Publish or Perish software, article data on Google Scholar in 2019 contained 150 articles that discussed Google Classroom as an e-learning media. In 2020 there were 289 articles that discussed Google Classroom as an e-learning media. The data shows an

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increase in the use of online learning media as a solution during the COVID-19 pandemic.

In addition, there are many alternative online learning media that can be used by educators. For example, Edmodo can be an option for online learning media (Ma'azi & Janfeshan, 2018; Sumardi & Muamaroh, 2020; Zain et al., 2019). Correia et al. (2020) said that WhatsApp, Skype and Zoom can be used as alternative online learning media that provide learning features through video conference (Correia et al., 2020).

In general, all online learning media have good characteristics and functions for use in distance learning. The problem is what educators consider when choosing online learning media. An educator must conduct an analysis that online media is effective and in accordance with the conditions of the educational environment, both for students, educators and institutions.

There are many types of online learning media that can be used by educators, which are accessed for free or paid. Based on the information above, this research gap is how an educator can find and determine appropriate, effective and efficient online learning media during the COVID-19 pandemic. So that learning and teaching activities can run smoothly and the planned learning objectives can be achieved optimally.

Bates, A.W. provided a solution that is using the SECTIONS model to select and decide what kind of learning media is suitable, effective and efficient. The SECTIONS stands for, Students, Ease of use, Costs, Teaching functions, Interaction, Organisational issues, Networking, Security and privacy (Bates, 2019). The purpose of this article is to analyze the relationship between SECTIONS components when selecting and deciding online learning media.

SECTIONS is a framework in the selection of learning technologies. A sequential framework for assessing the technological tools used to assist educators in their learning. SECTION provides some considerations for making learning media decisions. SECTIONS considers the ease of use of the tool for educators and students, the costs and support of the parties involved (Weilandt, 2021).

## METHOD

This research used a quantitative design with a Structural Equation Model (SEM). SEM approach is used to analyze the relationship between SECTIONS model's components and media selection variables. This method is to estimate the relationship between the observed variable and the latent variable (Bentler, 2010). Data processing using the help of AMOS software.

The number of participants in this study were 200 pre-service English teachers in the English Education Department at the Faculty of Tarbiyah and Teacher Training of Institut Agama Islam Negeri Syekh Nurjati, Cirebon, Indonesia. The selection of participants used a random sampling technique. The selection of participants based on their experience after practicing online teaching during the pandemic COVID-19.

### Hypothesis

- H1: The student has a significant influence on the selection of e-learning media.
- H2: The ease of use has a significant influence on the selection of e-learning media.
- H3: The costs factor has a significant influence on the selection of e-learning media.
- H4: The teaching functions has a significant influence on the selection of e-learning media.
- H5: The interaction has a significant influence on the selection of e-learning media.
- H6: The organisational issues factor has a significant influence on the selection of e-learning media.
- H7: The networking has a significant influence on the selection of e-learning media.
- H8: The security and privacy factor have a significant influence on the selection of e-learning media.

Figure 1 below is a test hypothesis model between observed variables and latent variables.

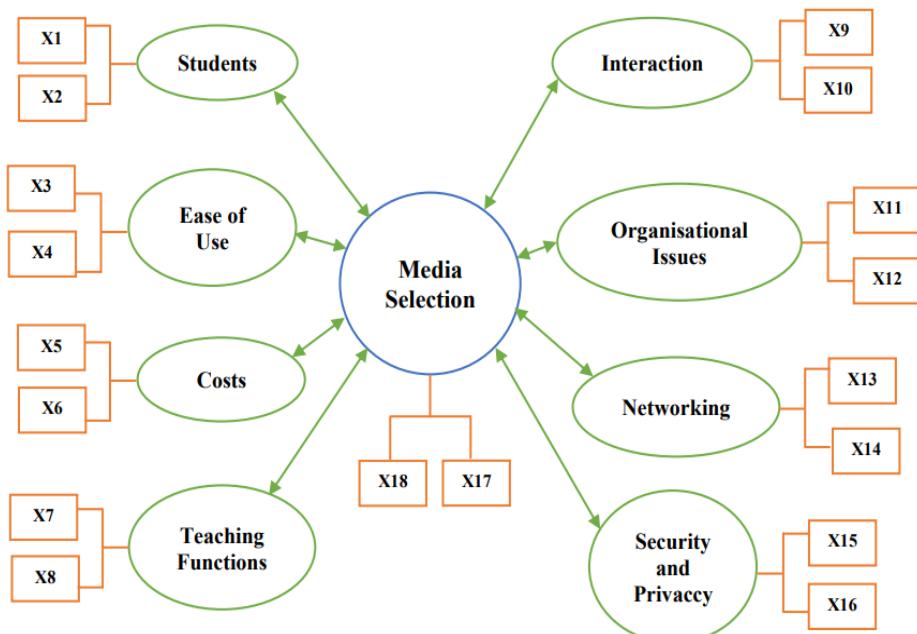


Figure 1  
Hypothesis model

### **Instruments and Indicator**

Assessment of the instrument using the Likert Scale technique with a range of values adopted from (Ayçiçek & Yelken, 2021) which is a minimum value of 1 and a maximum of 5 for each indicator of SECTIONS model and media selection. Table 1 below is the indicators of each variable in the SECTIONS model and media selection.

**Table 1**  
**Operational Definition**

Latent Variable	Indicator Variable
Students	X1 English learning media that is comfortable and easily accessible to students.
	X2 Noting the diversity of student learning.
Ease of Use	X3 Reliable technology.
	X4 Can be used for the development of English material.
Cost	X5 The cost of purchasing learning media is affordable.
	X6 Learning media development costs.
Teaching functions	X7 Practice English language skills: listening, speaking, reading, and writing.
	X8 Effective for teaching English.
Interaction	X9 Interaction with English learning materials.
	X10 Interaction between students and teacher, students and students.
Organisational issues	X11 Adjust to the institutional system in compiling teaching activities.
	X12 Support for the use of media and technology provided by the institution.
Networking	X13 Allows students to network outside of school for example with English experts.
	X14 Allows students to use social media to learn English.
Security and privacy	X15 Privacy and security while teaching.
	X16 Maintain the confidentiality of student information.
Media Selection	X17 SECTIONS model is effective for choosing English e-learning media.
	X18 SECTIONS model is efficient for choosing English e-learning media.

## FINDINGS

### Data Validity

The indicator of a variable is called valid if the Loading Factor value is greater than 0.5. Table 2 below is the loading factor value for each SECTIONS model and media selection indicator.

Table 2

Loading factor

Indicator			Estimate
X2	<---	Students	0.675
X1	<---	Students	0.607
X4	<---	Ease of Use	0.608
X3	<---	Ease of Use	0.612
X6	<---	Cost	0.663
X5	<---	Cost	0.572
X8	<---	Teaching functions	0.595
X7	<---	Teaching functions	0.516
X10	<---	Interaction	0.607
X9	<---	Interaction	0.577
X12	<---	Organisational issues	0.605
X11	<---	Organisational issues	0.681
X14	<---	Networking	0.532
X13	<---	Networking	0.644
X16	<---	Security and privacy	0.577
X15	<---	Security and privacy	0.635
X18	<---	Media Selection	0.554
X17	<---	Media Selection	0.514

Based on table 2 above, loading factor value  $> 0.5$ . It can be concluded that all SECTIONS models and media selection indicators are valid.

### Assessment of Normality

The data has a normal distribution if the value of critical ratio (c.r.) skewness and kurtosis is in the range of -2.58 to 2.58 (Ghozali, 2006).

**Table 3**  
**Assessment of normality**

Indicator	skew	c.r	kurtosis	c.r
X18	-0.208	-1.202	-0.698	-2.015
X17	-0.277	-1.599	-0.452	-1.305
X15	-0.443	-2.555	-0.766	-2.210
X16	-0.389	-2.243	-0.874	-2.524
X13	-0.278	-1.610	-0.842	-2.430
X14	-0.434	-2.505	-0.589	-1.702
X11	-0.283	-1.632	-0.659	-1.902
X12	-0.441	-2.544	-0.596	-1.722
X9	-0.349	-2.016	-0.621	-1.792
X10	-0.394	-2.272	-0.493	-1.422
X7	-0.406	-2.346	-0.760	-2.193
X8	-0.429	-2.480	-0.651	-1.880
X5	-0.376	-2.169	-0.431	-1.244
X6	-0.427	-2.466	-0.644	-1.859
X3	-0.346	-1.997	-0.777	-2.242
X4	-0.205	-1.184	-0.813	-2.346
X1	-0.339	-1.956	-0.805	-2.324
X2	-0.413	-2.386	-0.786	-2.268

From the table above, it can be seen that all SETIONS model and selection media indicators have a normal distribution.

### **Hypotheses Test Results**

For the model fit test, from data processing obtained, Probability = 0.185 greater than 0.05; GFI = 0.928 greater than 0.90; AGFI = 0.903 greater than 0.09; RMSEA = 0.024 less than 0.08; RMR = 0.042 less than 0.05; it means that the Good of Fit has been met and can proceed to the hypothesis test.

**Table 4**  
**Hypotheses test results**

<b>Hypothesized variables</b>			<b>Estimate</b>	<b>SE</b>	<b>CR</b>	<b>P</b>	<b>H</b>	<b>Support</b>
Students	<---	Media Selection	1.234	0.385	3.201	0.001	H1	Yes
Ease of Use	<---	Media Selection	1.194	0.393	3.034	0.002	H2	Yes
Cost	<---	Media Selection	1.225	0.370	3.308	0.000	H3	Yes
Teaching functions	<---	Media Selection	1.121	0.363	3.091	0.002	H4	Yes
Interaction	<---	Media Selection	1.064	0.349	3.052	0.002	H5	Yes
Organisational issues	<---	Media Selection	0.988	0.338	2.922	0.003	H6	Yes
Networking	<---	Media Selection	0.784	0.309	2.539	0.011	H7	Yes
Security and privacy	<---	Media Selection	1.014	0.356	2.847	0.004	H8	Yes

Based on table 4, hypothesis testing can be done with 3 criteria for a significant level of 0.1%, 1% and 5% according to the AMOS output. It can be concluded that the student has a significant influence on the selection of e-learning media, H1 is accepted, indicated by CR value 3.201 with P value  $0.001 \leq 0.001$ . The ease of use has a significant influence on the selection of e-learning media, H2 is accepted, indicated by CR value 3.034 with P value  $0.002 < 0.01$ . The costs factor has a significant influence on the selection of e-learning media, H3 is accepted, indicated by CR value 3.308 with P value  $0.000 < 0.001$ . The teaching functions has a significant influence on the selection of e-learning media, H4 is accepted, indicated by CR value 3.091 with P value  $0.002 < 0.01$ . The interaction has a significant influence on the selection of e-learning media, H5 is accepted, indicated by CR value 3.052 with P value  $0.002 < 0.01$ . The organisational issues factor has a significant influence on the selection of e-learning media, H6 is accepted, indicated by CR value 2.922 with P value  $0.003 < 0.01$ . The networking has a significant influence on the selection of e-learning media, H7 is accepted, indicated by CR value 2.539 with P value  $0.011 < 0.05$ . The security and privacy factor have a significant influence on the selection of e-learning media, H8 is accepted, indicated by CR value 2.847 with P value  $0.004 < 0.01$ .

## DISCUSSION

### Relationship between Students and Media Selection

The selection of e-learning media should pay attention to the condition of students. The selected media is adjusted to the students' abilities. This adjustment can be seen from the aspect of student demographics, differences in how students learn or the ability of students themselves to understand and use the media (Bates, 2019). If you don't pay

attention to this, then the median is not useful and only becomes an inhibiting factor for learning. Therefore, one of the factors in the selection of learning media is students.

In learning English, the convenience of students in using the media, the ease of access for students must be considered. For countries whose daily language is not English, there are many obstacles, plus the diverse backgrounds of students. This makes educators have to really pay attention to the condition of students when choosing learning media. (Fewkes & McCabe, 2012) explained that the use of social media such as Facebook provides comfort to students. Communicative English learning for students is also necessary, such as the learning facilities found on the Zoom media (Kohnke & Moorhouse, 2020). Therefore, English e-learning media that is comfortable and easily accessible to students.

### **Relationship between Ease of Use and Media Selection**

How to use online learning media is not the goal of the learning process. Teachers and students do not need to spend a lot of time and energy to learn how to use learning media. The focus of the learning objectives is the learning outcomes, abilities and skills of students (Duke, 2002), not be an expert in making learning media. Therefore, the selection of learning media that is reliable and easy to use.

In learning English, the ease of using flexible, easy and efficient media for beginners is the ability to operate it. For example, in according with Saed et al. (2021) that the practicing English speaking using YouTube, besides being easy to use, it is also able to develop speaking skills. From the educator's point of view, the development of English language material needs to be carried out continuously. Develop more interesting material, especially for students whose daily language is not English. Therefore, the selection of e-learning media is expected to support material development.

### **Relationship between Cost and Media Selection**

The dilemma for creating a high-quality e-learning system is cost (Weller, 2004). This includes the selection of e-learning media. If the costs incurred for e-learning media are high, then the e-learning media will be of higher quality. However, not all institutions have large budgets to meet these needs. Therefore, the principle of effective and efficient must be used. The cost of purchasing learning media is affordable. Operational and development costs are not cheap for institutions, educators and students. However, being able to create a maximum online learning atmosphere.

### **Relationship between Teaching Functions and Media Selection**

The selection of e-learning media must pay attention to the main function of the media. The selected media creates a good learning atmosphere and achieves the goals planned in the curriculum. In addition, it can motivate students during the teaching and learning process (Puspitarini & Hanif, 2019).

Choosing English e-learning media related to teaching functions, namely coherence media, learning English online through unity between parts of vocabulary, sound and images. In addition, choosing media to improve listening skill for example social media

such as YouTube. Because, students' abilities develop when they feel happy, for example when listening to English songs (Lee, 2014). Then, choosing e-learning media that supports educators to practice reading and writing skills.

### **Relationship between Interaction and Media Selection**

Although learning is done online, the selection of media is expected to increase the interaction relationship between the subject and the object of learning. The convenience of online learning is caused by the interaction between educators and students (Englehart, 2009). In addition, to create a good online class, even though there are active and passive students, interaction between students and students has an important role (Nguyen et al., 2018).

In learning English, the selection of e-learning media pays attention to the interaction with English learning materials. Choosing an online application media that can communicate the content of the learning material with the student's living environment, for example the use of the English application on the Play Store which contains vocabulary and example sentences related to the student environment.

### **Relationship between Organisational Issues and Media Selection**

An educational institution is a place for the educational process to guide and lead people to a better future. Educational institutions have a great contribution to the success of education process. The selection of online media cannot be separated from school support.

The selection of online media cannot be separated from the support of the Institute. The influential critical issues are 1) Adjust to the institutional system in compiling teaching activities; 2) Adequate technology instructional services 3) Support for the use of media and technology provided by the institution (Bates, 2019).

### **Relationship between Networking and Media Selection**

Networking is part of the education improvement strategy in a number of countries (Muijs et al., 2011). Networking supports students to explore new knowledge, but there are negative impacts. For example, the phenomenon of Cyberbullying. Cyberbullying is a student with low achievement (von Marées & Petermann, 2012). Therefore, educators must be careful in the selection of e-learning media and educators supervise student networks because there are negative and positive impacts.

In English e-learning media, students are expected to allow networking outside of school, for example networking with English language experts, networking with people whose daily language is English, then using social media to learn English.

### **Relationship between Security and privacy and Media Selection**

Educators and students need privacy to carry out the learning process. When conducting discussions, take care that radical or rash comments are not widely disseminated, for example through Facebook (Bates, 2019). Therefore, the selection and use of e-learning

media must be monitored for privacy and security while teaching and maintaining the confidentiality of student information.

### CONCLUSION

Technological developments encourage teachers to be creative and innovative in carrying out the learning process. The selection of e-learning media in the learning process must be careful, because there are many impacts that will arise if educators make mistakes in determining which media will be selected. One solution to the selection technique is to use the SECTIONS model. With this model, it is expected that before determining the e-learning media, educators conduct an analysis first, in order to minimize the negative impacts that arise.

The results of this study show that the SUCTIONS components, namely Students, Ease of use, Costs, Teaching functions, Interaction, Organisational issues, Networking, Security and privacy have a significant influence on the selection of e-learning media. In general, the SECTIONS model is effective and efficient for selecting English e-learning media. Through the SECTIONS model, it can minimize the negative impacts caused by incorrectly determining e-learning media.

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