INVESTIGATION OF IDEAL EMPLOYABILITY SKILLS: A LITERATURE REVIEW ON COMPONENTS AND ANTECEDENTS

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ABSTRACT

This study employs a literature review approach to investigate the idea of Employability skills, including definitions, components, and antecedents, in order to undertake further studies connected to the topic. This is necessary because there are only few other studies that look at employability abilities. The bibliometric approach was applied in this study to provide a more comprehensive view of subjects relevant to employability skills. Based on the data, it can be stated that there are a variety of abilities that make up Employability skills. In addition, the factors that become the antecedents of Employability skills in general are external and internal factors of the individual.

Keywords: Employability Skills, Employability, Skill, Antecedent, Curriculum Reform, Educational Outcomes.

INTRODUCTION

Referring to the statistics of the World Bank (2021), the unemployment rate in the world experienced a downward trend from 2009 to 2019. However, surprisingly this was inversely proportional to the trend of unemployment in workers aged 15-24 years which tended to increase in the same period (World Banks, 2021). In general, the age of 15-24 is the age at which individuals are still or have just finished their education, including advanced education. In this case, it can be said that fresh graduate students are also included in it. As for one of the factors of high unemployment in new graduates is the lack of adequate skills needed in the world of work (Pauw et al., 2008). In addition, it is also difficult for new graduates to meet the required qualifications due to increasingly diverse demands. Therefore, both students who have not graduated or are fresh graduates must be able to have an added value to get the desired job. The ability can be referred to as employability.

Employability is students' ability to get a job that matches their educational standards after graduation (Cox & King, 2006). Furthermore, employability is categorized into two aspects, namely transferable skills or employability skills (ES) and subject skills. ES are general skills needed to get and keep a job, while subject skills are specific skills relevant to a specific job (Cox & King, 2006). These specific skills are important because students without specific skills tend to have difficulty in finding and obtaining jobs after graduation (Kigotho, 2019). As a result,

it is strongly advised that students develop and shape these two types of abilities in order to enhance their employment opportunities after graduation.

However, since students consider ES as basic skills or must-have skills, they tend to prioritize ES over subject skills. ES is also one of the considerations for job seekers in recruiting new graduates (Nawai, 2021). Therefore, it is important for students to know what factors can develop ES. Universities as institutions for developing student skills and the government as regulators also need to know this. Unfortunately, information related to ES is not comprehensive so it is less effective in understanding it. In addition, literature reviews that discuss ES are still rare. Therefore, it is necessary to carry out further studies related to what elements are contained in ES and what factors (antecedents) can develop ES, and can serve as guidelines for all related parties.

RESEARCH METHODS

This research is a literature review, meaning that this research aims to investigate previous studies with the topic being discussed (Levstek et al., 2018). This research focuses the study on ES, including its definition, elements, and antecedents. A search for references from previous studies was carried out through online databases.

The technique used in the search is bibliometric with the help of VosViewer 1.6.16 software. This technique is used to map other ES-related topics from previous studies. However, not all previous studies were used as references in this study. The studies must be/have:

1. A scientific article;
2. Sourced from scientific journals;
3. Published in 2006-2021;
4. Employability skills as the keyword

Figure 1
TOPIC MAPPING RESULTS WITH VOSVIEWER

FINDINGS AND DISCUSSION

The results of topic mapping using bibliometric techniques are presented in Figure 1. In addition to research topics, bibliometric analysis can also map the context of the research being carried out. Meanwhile, the online database used is a common base used by other studies as a reference source. Then, the previous scientific articles were collected for further review of their relevance. If not relevant, the scientific article will be removed. As a result, there are several scientific articles that are considered relevant as references in this literature review as summarized in the database presented in Table 1.

Table 1 Relevant Articles	
Database	Keyword: Person-job fit
Emerald Insight	2
Google Scholar	3
SAGE	1
Science Direct	1
Semantic Scholar	3
SpringerLink	1
Total	11

Employability Skills (ES)

Before discussing the definition of ES, it is necessary to know the definition of employability itself. Although there is no definite definition, employability can be expressed as a person's capability to get a first job and a new job if needed (Chadha & Toner, 2017). When associated with the context of students, employability is defined as the ability of students to get jobs that are in accordance with their educational standards after graduation (Cox & King, 2006). Furthermore, Cox & King also stated that employability is classified into two aspects, namely transferable skills and subject skills. In this case, transferable skills are also referred to as ES. Thus, ES is a derivative of employability.

Cox and King (2006) define ES as a skill that may be used in the workplace. Unlike topic skills that are solely applicable to a certain career, ES is a skill that is required by all jobs. As a result, ES may be more easily transmitted through numerous student activities throughout their education. Employers require ES as intellectual, personal, and teamwork abilities from their employees, according to Kenayathulla et al. (2019). Furthermore, ES is a non-technical skill, transferable skill, or general skill that is obtained by education, training, extracurricular activities, hobbies, or job experience (Kenayathulla et al., 2019)

In line with these two ideas, Akindahunsi et al., (2021) emphasize ES as a collection of students' understandings, attributes or characteristics that make it easier to get and succeed in work. Therefore, it can be interpreted that ES is a skill acquired by students during their education In this instance, students can acquire and improve their ES in one of two methods. For starters, students develop ES naturally as a result of extracurricular activities or interests. Second, Hanapi et al. (2019) claim that ES may be created through university-based education that

follows their curriculum. On the other words, ES may also be defined as teachable abilities that can be learned or improved at school or at work (Nenzhelele, 2014).

Kamaliah et al. (2018) also emphasize ES as an essential non-technical skill in achieving success at all levels and areas of work. Furthermore, ES is classified into three skills:

1. Basic skills, including communication, reading, writing, and arithmetic.
2. Higher order skills, including learning, strategy, problem solving, and decision making.
3. Affective skills, including being reliable, responsible, good manners, and interpersonal skills.

As listed in Table 2, ES are all types of general abilities that assist an individual acquire, accomplish, and retain a job successfully. These abilities can be acquired in a variety of ways, including job experience and formal education.

No.	Table 2 DEFINITION OF EMPLOYABILITY SKILLS	
	Definition	Sumber
1	General skills that can be applied during work	(Cox & King, 2006)
2	Also called teachable skills that can be acquired or developed during education and work.	(Nenzhelele, 2014)
3	Non-technical skills that are essential for success at all levels and areas of work.	(Kamaliah et al., 2018)
4	Skills developed through higher education teaching in accordance with the curriculum.	(Hanapi et al., 2019)
5	Academic, personal, and teamwork skills that employers expect their employees to have	(Kenayathulla et al., 2019)
6	A collection of understandings, attributes or characteristics belonging to an individual that makes it easier for him to get and succeed in his work.	(Akindahunsi et al., 2021)

Elements of Employability Skills (ES)

In ES, there are many opinions about the elements, which may also be termed skills, just as there are various ideas about the definition. This variability is a result of the variety of situations in which prior research on ES has been conducted. From the perspective of an employer, Naawai (2021) identifies the ten most essential qualities that businesses look for when hiring new graduate students. Among the 10 abilities are:

1. Computer literacy skills;
2. Team work skills;
3. Intellectual skills;
4. Work independently;
5. Communication skills;
6. Skills to acquire new knowledge;
7. Analysis and problem-solving skills;
8. Numerical skills;
9. Character or personality;
10. Language skills.

Among the ten skills, computer literacy skills are the most important for employers in recruiting fresh graduates. The computer literacy skills refer to the skills to operate tasks on the

computer which are divided into two categories, namely software and hardware. Skills in computer software, such as understanding and being able to run programs, applications, equipment, and so on that support individuals in carrying out their work. Meanwhile, computer hardware skills, such as being able to activate a computer and a basic understanding of supporting components in operating a computer.

Furthermore, the Covid-19 epidemic is one of the reasons why computer literacy skills are so important. Many businesses rely heavily on digital media and information technology to carry out their operations. The ES connected to information technology has been recognized explicitly (Akindahunsi et al., 2021). Akindahunsi et al. provided 23 information technology abilities needed by students to acquire a job as a result of their research. The following are the ten most significant talents out of the 23:

1. Skills to connect to the internet;
2. Skills to perform cut, paste, save, and process information using word processing software.
3. Skills to use spreadsheets in performing accounting operations;
4. Skills to use word processing software in entering, editing, and storing information;
5. Skills to conduct research or search via the internet;
6. Skills to receive voice messages over the internet;
7. Skills to search for information via the internet;
8. Skills to identify, organize, and name cells.
9. Skills to use e-mail in receiving and sending letters; and
10. Skill to analyze data with computer.

Broadly speaking, the skills in ES proposed by Akindahunsi et al. are related to information and communication skills, and the form or method is in digital. The importance of information and communication skills in ES required by students is also supported by Kamaliah et al. (2018) who stated that there are 8 skills classified as ES. The eight skills include:

1. Resource management, with regard to the identification, planning, and efficient use of resources;
2. Working in a team, with respect to teamwork in a harmonious and efficient manner, as well as mutual tolerance and cooperation with other people of different races, genders, and ages;
3. Information skills, with regard to obtaining, using, interpreting, disseminating, and using efficient information processing through computers;
4. System understanding, with regard to understanding organizational culture, organizational weaknesses, and introducing new ideas to improve job performance;
5. Use of technology, regarding the selection, identification and use of appropriate technology in doing work, and solving problems with technology.
6. Basic skills, including reading, writing, mathematical operations, listening, and speaking.
7. Thinking skills, including creativity, decision making, visualization, learning, and argumentation.
8. Skills related to personality aspects.

Meanwhile, Bala & Singh (2021) view that there are differences in the ES required by students in terms of the novelty or modernity of a job. Modern ES is a skill required by today's market demandIn addition, Bala & Singh also distinguishes the need for ES based on the type of university, namely private and public. The following is the required ES according to Bala & Singh based on these two classifications:

Modern ES: State universities, covering analytical, delegation, ceptual, and strategic skills. Private college, covering perceptual skills, negotiation, and integrity.

Non-modern ES: State universities, include novelty, cognitive, and cross-disciplinary skills. Private college, covering cross-disciplinary, cognitive, and novelty skills.

Antecedent Employability Skills (ES)

After discussing the definitions and skills contained in ES, this section will discuss the determinants or antecedents of ES. Referring to several recent studies, only a few of them discuss the determinants that have been shown to increase ES. These factors are summarized in Table 3 as follows:

No	Antecedent	Source
	Table 3 **Employability Skills Antecedent**	
1	Project-Based Learning	(Isa et al., 2020)
2	Achievement Motivation	(Kamaliah et al., 2018)
3	Supervised Work Experience	(Kamaliah et al., 2018)
4	Experimental Learning	(Nenzhelele, 2014)
5	Domain Knowledge	(Ajit & Deshmukh, 2013)

Based on Table 3, in general, the results of previous studies show that various practical activities, such as supervised work experience, project-based learning, and experimental learning are able to improve students' ES. In this case, students can feel firsthand how the world of work will be faced in the future. Therefore, the experience he went through with the practice could be absorbed more optimally than simply studying theory in class. Thus, students can acquire the various skills needed to support their success in getting and keeping their jobs.

In addition, the achievement motivation factor also contributes to the improvement of students' ES. In this case, the student's strong desire or drive becomes a trigger factor to acquire various skills that will help him after graduation. That is, ES is not only determined with the help of external factors of the individual, but also within the individual himself. How strongly he intends to achieve something also helps him in achieving what he wants, ES is no exception. However, this is inversely proportional to the results of research by Ajit & Deshmukh (2013) which shows that motivational factors have no effect on ES. However, it is domain knowledge that has a significant effect on ES.

Domain knowledge is defined as the scope or scope of knowledge studied by students. In this case, each student certainly has scientific characteristics that are different from other students outside their field of study. Therefore, not every skill needed by students is exactly the same as other students. This is in line with the statement of Cox & King, (2006) in which one of the determinants of student employability is the standard of education.

Thus, it can be concluded that the antecedents of ES are grouped into two factors, namely external factors that assist individuals in developing ES and internal factors that encourage individuals to develop ES. The external factors include supervised work experience, project-based learning, experimental learning, and domain knowledge. Meanwhile, the internal factor is achievement motivation.

Framework

Referring to the previous findings, it can be seen the influence of ES antecedents with ES itself which is described by the following Figure 2:
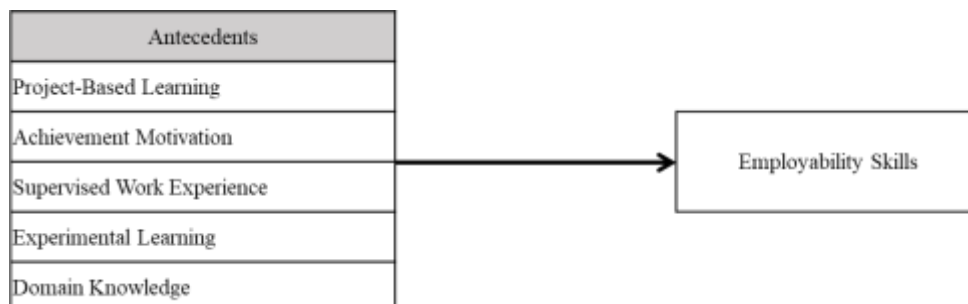

FIGURE 2
ES ANTECEDENT STUDY RESULTS FRAMEWORK

ES Research Developments

Judging from scientific articles from 2006 to 2021, the context of research on ES mentions a lot about recent graduates. In addition to new graduates, research with the context of students is also widely carried out by previous studies. This shows that students, both those who have or have not graduated, are objects that are considered very important as ES objects. Other relevant contexts are universities and higher education as institutions responsible for the development and improvement of student ES. On the other hand, the employer's view of what ES students should have and develop has also become a matter of concern for previous studies. The complete illustration is presented in Figure 3.

Referring to Table 4, the development of the research context on ES can be said to have changed. However, research on ES development efforts is still being carried out to date. This becomes rational if it is associated with the demands of the dynamic world of work so that more appropriate methods are needed in ES development. Meanwhile, the context of new graduates in particular is only mentioned by one previous study. This phenomenon is inversely proportional to the number of student contexts.

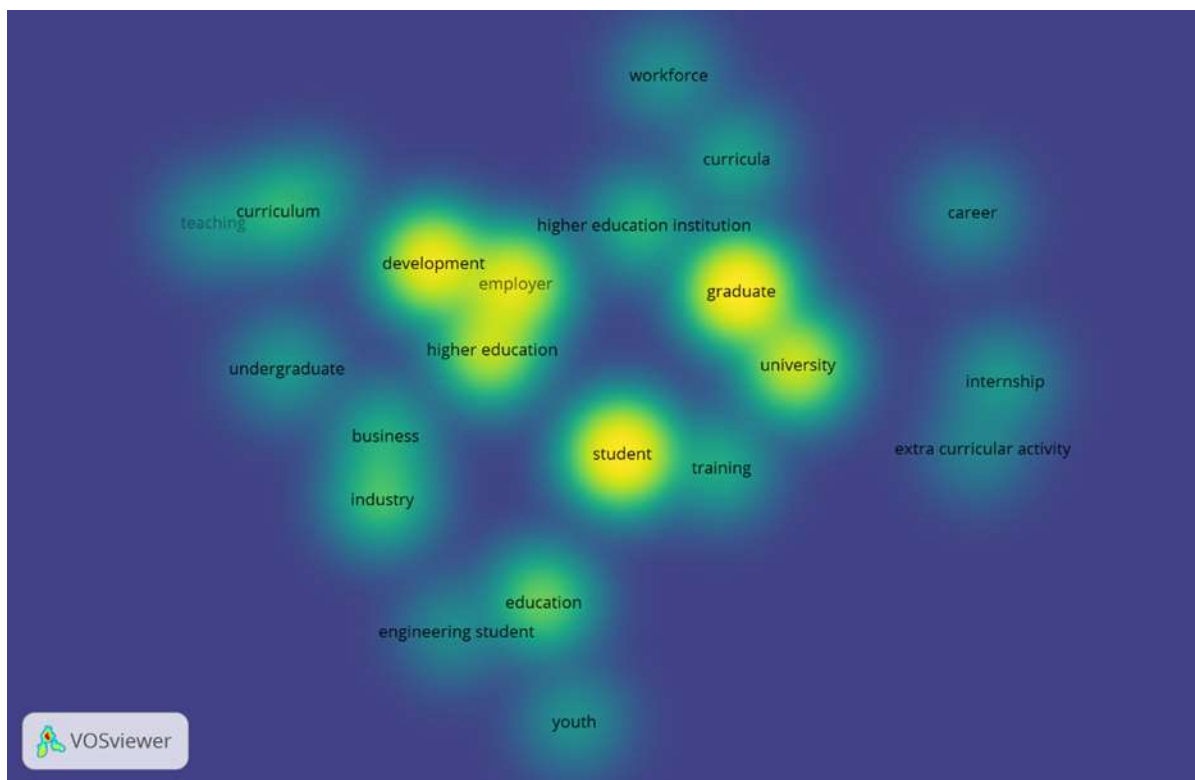| Table 4	
Reference Research Context	
Contexts	**Research**
ES Development	(Ajit & Deshmukh, 2013; Cox & King, 2006; Isa et al., 2020; Kamaliah et al., 2018; Nenzhelele, 2014)
Fresh Graduate	(Chadha & Toner, 2017)
Students	(Akindahunsi et al., 2021; Cox & King, 2006; Kamaliah et al., 2018; Kenayathulla et al., 2019)
Lecturers	(Bala & Singh, 2021; Hanapi et al., 2020)
Employers	(Cox & King, 2006; Nawai, 2021)

FIGURE 3
CONTEXT MAPPING RESULTS WITH VOSVIEWER

Research in the student context is usually related to the development efforts and skills required in ES. In addition, students as learners are considered easier to manage than fresh graduates. On the other hand, recent ES research tends to focus on the context of teachers and employers. Teachers as one of the parties responsible for developing ES students need to know what skills and things are needed in developing ES. Meanwhile, in the context of the employer, previous research sought to explore information about what skills were considered in hiring employees. Research with an employer context can be used as a reference in improving and developing ES to match job qualifications.

CONCLUSION AND LIMITATION

This study aims to carry out further studies related to ES with a literature review. Due to the limited number of relevant scientific articles, this study only uses 11 scientific articles as references published from 2006 to 2021. The findings in this study indicate that there are various kinds of skills included in ES, such as communication skills, information, and the use of technology that are increasingly being used today. In addition, there are also factors that can help individuals, especially students, in developing their ES. Broadly speaking, these factors are divided into two, namely external factors (learning methods/practices and scientific scope) and internal factors (motivation to achievement).

This research can be useful for students as a guide to continuously improve their ES in accordance with the demands of the world of work. In addition, universities can also take advantage of the findings of this study as a reference in the ES development program for their students, as well as enrich knowledge about what skills employers need. On the other hand, the government can also use this research as input for policy making that leads to efforts to develop ES for students.

However, this research still needs further development by covering a wider context. Thus, the antecedents of ES that have been identified through this research can increase, and are able to identify the benefits or consequences of ES.

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