The Influence of Character Education on the Job Readiness of Islamic Higher Education Students

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ABSTRACT. This study investigates the connection between character education and the readiness for employment in the context of chemistry education students. The research employs a quantitative descriptive approach and a correlational method to examine this relationship. Sixty-nine chemistry education students were randomly selected from a population of 220 students through random sampling to participate in this research. The data collected were subjected to analysis using the Pearson Product-Moment correlation method. The analysis results unveiled a statistically significant positive correlation between character education and work readiness among chemistry education students ($r = 0.532$, $p = 0.000 < 0.01$). This outcome suggests that character education is associated with an improved state of preparedness for work among students. The implications of these findings emphasize the importance of incorporating character education into the chemistry education curriculum. Doing so is vital for equipping students with the holistic self-preparation necessary to succeed in a competitive job market and face the challenges of the professional world more effectively.

Keywords: *Character building, Chemistry education students, Working readiness*

INTRODUCTION

The field of education has made significant contributions to the development of human civilization by preparing competent and high-quality Human Resources (HR) to work in their respective professions (Alharthy & Marni, 2020; Khan et al., 2019). Therefore, to realize that HR is prepared and of high quality, there is a need for synergy between the business or industrial world and educational institutions (Owusu-Agyeman & Fourie-Malherbe, 2019). However, graduates from higher education institutions such as universities still contribute to a relatively high rate of intellectual unemployment. Based on data from Badan Pusat Statistik (2020), in August 2020, the Open Unemployment Rate (OUR) for Diploma I/II/III graduates was 8.08%, while for university graduates, it was 7.35%. These figures have also increased compared to the previous year, with a 2.13% increase for Diploma I/II/III graduates and a 1.71% increase for university graduates. This high unemployment rate indicates that many students must be absorbed into the workforce after completing their higher education institutions. The high number of unemployed university graduates is not only caused by the limited availability of job opportunities but also by companies' perception of the quality of graduates and the low level of work readiness among them (Wye et al.,

2012). Ideally, individuals ready for work possess expertise, knowledge, understanding, and personal attributes (Dacre et al., 2007).

Character is one of the factors that can influence individuals concerning work readiness. Character is an essential factor in work readiness because it can affect one's attitude, discipline, responsibility, honesty, cooperation, leadership, and teamwork ability (Budi, 2020; Junipitoyo et al., 2021). According to Kartono, as cited in Datadiwa & Widodo (2015), factors that can affect work readiness encompass both internal and external factors. Internal factors within oneself include intelligence, expertise and skills, talents, interests and abilities, self-motivation, health, psychological needs, personality, aspirations or goals, and work objectives. On the other hand, external factors that stem from outside oneself include family environment, work environment, job security, opportunities for advancement, colleagues, relationships with superiors, and salary. Based on these factors, character, which also encompasses personality, is one of the internal factors that influences work readiness. Character refers to psychological traits, morality, or virtues that distinguish an individual from others, also known as disposition or temperament (KBBI, 2019). According to Stenberg dalam Saptono (2011), character education is a deliberate effort to cultivate a good character fundamentally grounded in core virtues that benefit individuals and society.

Character education is an integral part of education that plays a vital role in shaping human resources with integrity, ethics, responsibility, and the ability to collaborate in teams (Kemdikbud, 2022; Manasikana & Anggraeni, 2018). In an increasingly competitive era of globalization, graduates with good character traits are highly sought after by the workforce. People with character are preferred in the world of work because, nowadays, many people are intelligent but lack character (Laila, 2018). Character education involves consistently instilling positive habits so learners can act and behave based on the values that have become part of their personality (Kemdikbud, 2022). Implementing character education in schools is crucial to producing graduates ready to enter the workforce with good character and soft skills (Husnita & Suparno, 2020). Despite character education being integrated into the curriculum in Indonesia, many students still need help understanding and applying character values in their daily lives. This happens because character education has not been used since childhood (Triaristina & Mukhlis, 2019). Students also often face challenges in applying the character values they have learned on campus in the workplace after graduation (Winarni et al., 2021). This can impact the work readiness of students, especially those in the field of chemistry education, as they face challenges in the professional world.

Chemistry education students possess the skills and knowledge required to work in various industries that demand graduates with a background in chemistry education. In the increasingly competitive job market, chemistry education students must have optimal work readiness. One of the factors that can influence students' work readiness is character education. Research has shown that character education can help students develop positive character traits, enhance academic achievement, and reduce problem behaviours (M. Ferrara, 2019). Incorporating character education into chemistry education can also assist students in developing scientific character traits such as honesty, responsibility, and communication skills (Rusmini et al., 2021). Character education can facilitate acquiring skills and values necessary for the professional world. Several studies have been conducted regarding the impact of character education among students. One study found that character education can help students develop positive character traits, improve academic achievement, and reduce problem behaviour (Ramadhanu et al., 2019). Another study developed audio-visual learning media integrating character education in chemistry learning to facilitate conceptual change and strengthen student character (Pikoli & Lukum, 2021).

Therefore, as a student, it is essential to have a character education in him. Chemistry education students not only master knowledge and skills but must also have good personality traits (Kosim, 2021). This good character is formed through a series of processes and learning management systems that are formed by the study program in such a way as to form good character as prospective teachers or lifelong learners. This character is a soft skill needed in the world of

work to support the hard skills possessed by chemistry education students (Aly, 2017). The management and character education systems implemented in the chemistry education study program are carried out through habituation and exemplary internalization through the planning, organizing, actuating, and supervising stages (Hasanah & Husnul, 2021). This habituation is carried out by getting used to good things during lectures, as evidenced by creating conducive lectures and facilitating student creativity (Mannan, 2015). Meanwhile, the exemplary is shown by the teaching lecturers who provide examples of good communication to all students without discriminating. Through this habituation and example, chemistry education students in the world of work will be better prepared both in terms of character soft skills that are accustomed to in particular and hard skills that are taught in chemistry education study programs in general.

The importance of student readiness in facing the world of work has become a significant concern in education. This readiness involves aspects of character that also play a crucial role in shaping the attitudes and skills needed to succeed in the world of work. Several previous studies have been conducted to reveal the effect of character on student work readiness. Previous research on character education's effect on work readiness has been carried out by Partono et al. (2020). His research revealed a partial and simultaneous significant effect of character education, learning environment, and self-reliance on the work readiness of class XII students of Automotive Engineering Light Vehicles at SMKN 1 Trenggalek. This research focuses more on the influence of character education, learning environment, and self-efficacy on student work readiness in Automotive Lightweight Vehicle Engineering.

On the other hand, research by Budi (2020) outlines the implementation of the new curriculum in the Financial and Banking Administration Study Program at the University of Indonesia, which aims to educate students in character aspects that align with the needs of the digital era. This study identified three stages in the implementation of character education for work readiness, namely the preparation stage, the implementation stage, and the evaluation stage. This approach involves developing four main skills, personal, interpersonal, group, and information technology skills, relevant to the demands of the world of work. Although previous studies have confirmed the critical role of a character in shaping job readiness, some gaps need to be addressed. In its context, chemistry education has different dynamics and job readiness requirements. So, there are differences in the focus of character education, which is especially relevant in chemistry education with previous research. Therefore, it is necessary to research how character education in a chemistry education environment can affect student work readiness.

This study was conducted to determine the extent to which character education influences the work readiness of chemistry education students at Sunan Kalijaga State Islamic University. This research is expected to ascertain the influence of character education on the work readiness of chemistry education students, thereby providing recommendations for other educational institutions to develop character education for their students.

METHOD

This study employed a quantitative descriptive research method with a correlational approach. This research aimed to examine the relationship between two or more variables and the extent to which a variable is associated with another variable (Sugiono, 2016). The variables used in this study were the independent variable (X), character education, and the dependent variable (Y), work readiness. The subjects of this study were students of the Chemistry Education program at Sunan Kalijaga State Islamic University. Significantly, this study included a target population of 220 students, while the sample size selected for this study was 69 students, selected methodically through a simple random sampling technique. The instrument utilized in this research consisted of a Likert scale questionnaire assessing character education and work readiness, comprising four response alternatives: Strongly Disagree (SD), Disagree (D), Agree (A), and Strongly Agree (SA). The

dependent variable (Y) in this study was work readiness. The questionnaire for measuring work readiness consisted of 20 items and was structured based on the dimensions proposed by Dacre Pool & Sewell (2007), encompassing skill, knowledge, understanding, and personal attributes. The questionnaire incorporated both favourable and unfavourable items. For favourable items, each SA response received a score of 1, A received a score of 2, D received a score of 3, and each SD response received a score of 4. Conversely, for unfavourable items, each SA response received a score of 4, A received a score of 3, D received a score of 2, and each SD response received a score of 1.

The independent variable (X) in this study is character education. The researcher developed the scale used to measure character education in this research, which consisted of 24 items. The scale was constructed based on the five core values of character education, which draw references from Pancasila (the philosophical foundation of Indonesia), the elements of the National Mental Revolution Movement, the national character needs, and the cultural wisdom of the Indonesian nation. These five core values include religious values, nationalism, integrity, independence, and cooperation (Kemendikbud, 2017). The procedure in this study consists of three stages: preparation, implementation, and data analysis. The preparation stage involves the researcher conducting a literature review, formulating research questions and hypotheses, and preparing research instruments such as the character education scale comprising 24 items and the job readiness scale comprising 20 items. Additionally, the researcher conducted a scale tryout with 36 chemistry education students during this stage.

Table 1: Validity and Reliability of Research Measuring Instruments

No.	Measuring instrument	Number of Items Tested	Number of Valid Items	Validity Index	Reliability Index
1.	Character Education Scale	24	16	0.345 – 0.558	0.776
2.	Job Readiness Scale	20	16	0.344 – 0.738	0.852

Through the scale tryout, the Corrected Item-Total Correlation scores as the item validity based on Table 1 indicate that for 24 items tested in the character education scale, eight items were eliminated or deemed invalid, resulting in 16 valid items. Meanwhile, in the job readiness scale, 20 items were tested, and four items were eliminated or deemed invalid, resulting in 16 valid items. Furthermore, based on the validity index and reliability scores, both instruments used in this study demonstrated acceptable validity and reliability. The next stage is the implementation phase, where the researcher conducts the study with the subjects, 69 students chosen through simple random sampling from the Chemistry Education program at Sunan Kalijaga State Islamic University. The final stage is the data analysis process. In this stage, the researcher utilizes SPSS (Statistical Program for Social Science) version 26.0 to analyze the research data. Parametric analyses such as independent sample t-tests, bivariate correlation, regression, and others are conducted, assuming the data follows a normal distribution. The Kolmogorov-Smirnov test is employed in this study to test the normality of the data. The testing criteria are as follows: (a) If the significance value is more than 0.05, the data is considered customarily distributed, and (b) If the significance value is less than 0.05, the data is considered not normally distributed. The analysis utilized in this study is the product-moment correlation test to examine the presence or absence of a relationship between the independent variable, character education, and the dependent variable, work readiness among chemistry education students.

RESULT AND DISCUSSION

Result

Figure 1 illustrates the total number of samples in the study, which consists of 69 male and female students aged between 18 and 22. Among male students were three individuals aged 19, 2 individuals aged 20, and 1 individual aged 21. On the other hand, among female students, there were 11 individuals aged 18, 9 individuals aged 19, 15 individuals aged 20, 19 individuals aged 21, and 9

individuals aged 22. The selection of research samples based on gender and age indicates that the chosen sample represents chemistry education students approaching the age of work readiness.
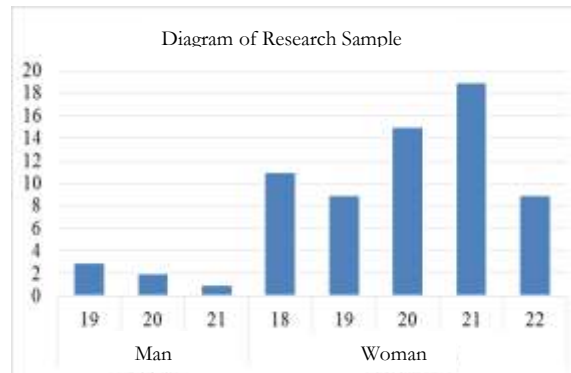

Figure 1: Diagram of Research Sample Description Based on Gender and Age

Based on the normality test conducted using the One-Sample Kolmogorov-Smirnov Test (K-S), the obtained significance value is 0.200, more than 0.05. It indicates that the data from both variables are normally distributed. Therefore, the next step is to proceed with the Pearson Product Moment Correlation test.

Table 2: Pearson Product Moment Correlation Test Results

No.	Test results	Analysis Index
1.	Correlation Coefficient (r)	0.532
2.	Determinant Coefficient (r^2)	0.283
3.	Degree of Probability of Error	0.01 (1% level)
4.	Significance Value (*p*)	0

Based on the data analysis presented in Table 2, a significant positive relationship exists between character education and work readiness among chemistry education students. It is evidenced by the Pearson Product Moment correlation coefficient value of r = 0.532 and a p-value of 0.000, which is smaller than the significance level of 0.01. Consistent with these findings, the data analysis also yielded a coefficient of determination (r2) value of 0.283, indicating that character education effectively contributes to 28.3% of the variance in work readiness among chemistry education students. The remaining 71.7% is influenced by other factors outside the scope of the research variables that can affect students' work readiness. The Pearson correlation coefficient measures the strength of the linear relationship between two variables. A correlation coefficient 0.532 indicates a moderately strong positive relationship between character education and work readiness among chemistry education students. As the level of character education increases, the level of work readiness among students also tends to increase.

Furthermore, the significant p-value indicates that the observed correlation is not occurring by chance or due to other factors. A p-value lower than the predetermined significance level (0.01) suggests a significant positive relationship between character education and work readiness among chemistry education students. Quality chemistry education graduates have proven character education and job readiness. Many chemistry education students complete their studies in less than four years with a satisfactory qualitative grade point average (Kimia, 2023). On the other hand, the acceptance of students graduating from chemistry education in the world of work is also excellent. Many alums have careers in education and non-education with a fast adaptation rate (Assessor, personal communication, 2023). In terms of the management aspect, the quality of graduates shows that the competencies of graduates accepted in the world of work follow the majors being studied so that the level of adaptation is more manageable. When the competencies of existing graduates need to follow their field of work, it will impact the quality of their work. Meanwhile, based on

character management, the higher the level of education, the more applicable character education will be (Harun, 2013).

These findings emphasize the importance of character education in promoting work readiness among students and highlight the need for further research to explore additional factors that contribute to work readiness beyond the scope of this study. It is essential to consider the limitations and context of the research when interpreting and generalizing these results.

Discussion

The research using the Pearson Product Moment correlation test revealed a significant positive relationship between character education and work readiness among chemistry education students at a 1% significance level. This positive relationship indicates that as the level of character education increases among chemistry education students, their readiness for work also increases. Conversely, as the level of character education decreases, their readiness for work diminishes. This finding aligns with research conducted by Partono et al. (2020), which shows the positive influence of character-building, learning environment, and self-efficacy on work readiness. Although the results are different because this research focuses on character education in the context of chemistry education, while previous research involved a more comprehensive range of variables, the findings still show consistency in the relationship between individual character traits and job readiness. This has substantial implications for the world of education, where character development and positive attitudes need to be integrated into the curriculum to help students prepare themselves holistically for the world of work.

Research on curriculum implementation has previously been carried out by Budi (2020), who discussed the implementation of the new curriculum in the Financial and Banking Administration Study Program, specifically educating students in the character field for work readiness in this digital era. Although the research focus is different, this research finds that character education in work readiness is a strategy aimed at producing graduates ready to compete in a challenging job market. The study emphasizes that attitude and character are essential indicators for the quality of human resources to enter the competitive labour market. Rosidah et al. (2022) also stated that character values were better after being given soft skill training. The study shows that instilling character values through learning can equip graduates with work readiness and help internalize values for student life on campus and in society. Thus, these findings reinforce the idea that character development through education and training positively impacts individual readiness to face challenges in work and everyday life. Integrating character development and mastery of soft skills is an increasingly important strategy in supporting student success in various aspects of life.

Overall, these findings consistently show the importance of character development in education to help students holistically prepare to face a complex and challenging world of work. The implications are relevant for curriculum development and educational strategies at various levels, emphasizing positive character development to achieve optimal job readiness. However, it is essential to consider the limitations and contextual factors of the current study. Further research is warranted to explore additional variables and factors that may impact work readiness among chemistry education students.

Table 3: Frequency Distribution of Character Education Scale Scores

Category	Intervals	Frequency	Percentage
High	T$score$ > 50	36	52%
Low	T$score$ ≤ 50	33	48%
Amount		69	100%

Table 3 shows that out of the 69 sampled students, 36 have a high level of character education, accounting for 52% of the sample. In comparison, the remaining 33 students have a low

level of character education, accounting for 48% of the sample. It indicates that most chemistry education students at Sunan Kalijaga State Islamic University have endeavoured to cultivate good character based on core virtues that benefit individuals and society (Saptono, 2011). This approach has a direct impact on the development of character education values that have been proclaimed by Kemendikbud (2017). Values such as religion, nationalism, integrity, independence, and cooperation are applied in everyday life and used as a guide in building solid and ethical character. For example, religious values encourage students to live in a spirit of tolerance, love, peace, and respect for religious differences. Nationalist values forbid the importance of respect for the culture and wealth of the nation and the obligation to contribute to the country. The value of integrity encourages consistency between words and actions, as well as responsibility towards oneself and society.

The importance of students' efforts in developing good character has implications not only in an academic but also in a professional and social context. Students who have succeeded in building positive character will be better prepared to face various challenges in the world of work and undergo social interactions with good ethics. In addition, initiatives in honing character also have the potential to positively impact the surrounding environment, encouraging the formation of a more harmonious and productive environment (Indriharta, 2018). Good character is crucial for students to achieve mature work readiness and succeed in a competitive job market (Mahniar Sinaga et al., 2021). The fact that a higher percentage of students fall into the high category of character education suggests that they have prioritized cultivating positive character traits. It indicates their awareness of the significance of character development in their personal and professional lives.

Table 4: Frequency Distribution of Work Readiness Scale Scores

Kategori	Intervals	Frequency	Percentage
High	T*score* > 50	34	49%
Low	T*score* ≤ 50	35	51%
Amount		69	100%

Table 4 shows that out of the 69 sampled students, 34 have a high level of work readiness, accounting for 49%, while the remaining 35 have a low level of work readiness, accounting for 51%. Table 3 also indicates a slight difference between the high and low categories of work readiness among the students of Chemistry Education at Sunan Kalijaga State Islamic University, with only a 2% difference. In the context of chemistry education, having good job readiness is crucial. Job readiness includes understanding and mastering relevant technical skills and knowledge, character development, and adapting to various situations and challenges in a dynamic work environment. *Job readiness* is the bridge that connects the learning process in higher education with success in the world of work. To achieve mature work readiness, chemistry education students need to be involved in efforts to increase work readiness. In this case, the concept described by Pool and Sewell (2007) is very relevant. Job readiness consists of four main aspects: skills, knowledge, understanding, and personal attributes. Through the development of these four aspects, students can form a solid foundation to face challenges in the world of work. Therefore, the need to integrate character education into the curriculum of the Chemistry Education Program is very relevant. Students with solid character education, such as religious, nationalist, integrity, independence, and cooperation values, will have a solid foundation for various career situations.

According to Ramli (2003), character education plays an important role, and character education carries the same meaning as moral and ethical education. Its goal is to create good individuals, a good society, and good citizens. Generally, the criteria for a good individual, a good society, and a good citizen in a community or country are specific social values primarily influenced by the community and culture. For example, interpersonal relationships also need to consider social

values in the workplace, such as how individuals adhere to work ethics and how colleagues and superiors perceive their performance. It is through the cultivation and pursuit of a character that character education becomes meaningful, and good character can be instilled in every individual. Therefore, concerning the explanation above, an individual with good character is ready to enter the workforce.

CONCLUSION

Based on the research findings and discussion, there is a positive correlation between character education and work readiness, indicating that the higher the level of character education among chemistry education students, the more prepared they are for work. This research is expected to serve as a basis for the development of students in order to enhance character education, thus enabling students to have better work readiness. Integrating character values into the chemistry education curriculum is essential to help students prepare themselves holistically and succeed in a competitive world of work. This research is limited to the importance of character education in preparing students to enter the world of work with the specified factors. Further research is needed to explore additional variables and factors that may influence work readiness among chemistry education students.

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