Assessing Character Education in Higher Education: A Qualitative Case Study Utilizing NVivo for Data Analysis

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Abstract

Character education is a fundamental component of higher education, contributing to the holistic development of students and their readiness for ethical decision-making in an increasingly complex world. This study presents a qualitative case study evaluation of character education programs within a university setting. The research employs NVivo, a powerful data processing tool, to analyze and interpret the rich qualitative data collected. By examining the multifaceted dimensions of character education, the study explores its impact, effectiveness, and challenges in its implementation. Findings provide insights into how character education shapes students' values, behaviors, and ethical perspectives. The study also sheds light on the strategies employed by the university to foster character development. The research findings offer valuable perspectives for higher education institutions committed to cultivating character education as an integral part of their academic mission.

Keywords: character education, assessment, qualitative, NVivo

I. Introduction

In the 21st century, the Indonesian nation needs an innovative learning transformation in shaping character leadership for the children of Indonesia. The goal of knowledge-based Indonesian national education is to prepare for the transformation of learning for students for jobs that do not currently exist and for lost jobs, use of undiscovered technology, and solve problems that have not yet emerged.

Through student education, professional subjects are required not only in the academic field but must have the right skills to learn, adapt, and innovate. The skills needed to succeed in real life include creativity and entrepreneurship, technology and media literacy, effective communication, problem-solving, critical thinking, and collaboration [1].

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Education Profession is a general course that students from the faculty of education and education must support. Each student of the different faculty of education and education is expected through the education profession to be a professional educator with the main task of educating, teaching, guiding, directing, training, evaluating, and evaluating students in early childhood education through formal education, primary education and secondary education as well as facilitators of education personnel [2]. Educators are conscious and plan efforts to realize the learning atmosphere and learning process so that students actively develop their potential to have spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation, and state [3]

Transformation of learning through the education profession courses will produce professional students in their fields, namely professionals in character education leadership [4]. Professionals are jobs or activities carried out by a person and

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become a source of life income that requires expertise, skills, or skills that meet specific quality standards or norms and need professional education. Professional education will result in the characterization of national leadership education. Its character determines the existence of a nation. Only a nation with a strong character can make itself a nation dignified and respected by other nations. Therefore, being a nation of character must be the desire of all countries.

The researcher conducted a preliminary survey delivering questionnaires to the respondents, students in the mathematics education study program, about the online learning undertaken in the university. The researchers created the questionnaires to get the information for requirement analysis, as shown in Table 1.

Table 1. Content of preliminary research questionnaire

Category	Question		
1. Content	 Is the learning content presented in an easily comprehensible manner? Does the learning content capture your interest effectively? 		
Infrastructure	Is the school's internet connection suitable for seamless online learning? Does your home's internet connection support smooth online learning?		
Media	Do you find it convenient to access online learning through a computer? Is accessing online learning via a mobile device straightforward?		
Motivation	Does the integration of new technology enhance your learning motivation? Do teachers consistently introduce innovative approaches?		
Learning Load	Does online learning require less time compared to in- person classes? Do online learning assignments tend to be more extensive than those in traditional classes?		

The results of the questionnaires, as shown in Figure 1, indicated that students needed help learning online, such as uninteresting content and lack of content, motivation, and load. The students evaluated that the content had a mean of 2.68. It meant that the lecture delivered content that could have been more interesting and easier to understand. The students evaluated that the motivation had a mean of 2.59. It meant that the lecture delivered content that could not have been more interesting and motivating to students. The assessed students that the learning load had a mean of 2.93. It meant that the lecturer gave a proper load of tasks to students. So, the content should be improved and more interesting; the teachers need to improve their skills in

creating the learning material and sightly reduce the learning tasks to consume less time.

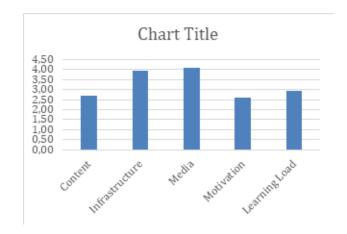


Figure 1. Results of questionnaires in preliminary research

From the explanation of some of the identification of the above problems related to the content, media, and motivation. The purpose of limiting the problem in this study is to improving with character education and technology, so this study was only conducted on teachers of the mathematics study program at the Faculty of Teacher Training and Education in Pematangsiantar, Indonesia.

The purpose of this study is to improve character education leadership through the transformation of the learning of professional education of teachers who are empowered through educational professional courses.

The results of this study are expected to provide helpful information or use for Nommensen's lecturers and students as a reference in improving the transformation of learning and improving educational leadership performance through training, coaching, and continuing higher education that is beneficial for the nation and the nation.

A. Transformative Learning

Following Transformation of learning takes place through interaction between students on the one hand and educators on the other. In learning transformation, there is interaction between students and other students. Interactions between students and other students and educators are in learning transformation [5]. The transformation of learning carried out by educators to students is an educational regulation. Activities that students intentionally carry out to achieve

learning goals. The purpose of learning is related to changes in behavior, including aspects of knowledge, skills, attitudes, values, and aspirations. Students own these aspects through learning experiences.

Transformation of learning is educational interaction in learning, which is the interaction between educators and students. In implementing the learning strategy, the two parties have different roles and appearances. Educators try to teach, which is to help students carry out learning activities, while students carry out learning activities by thinking and doing in and on the world of life. Understanding of learning as a process and learning as a result, as suggested by Gagne Gagne [6]. Learning, as a result, shows changes in behavior experienced by students after attending an education program. This change in behavior by Krathwohl and Bloom was compiled in the book "Taxonomy of Educational Objectives", which covers the realms of cognition, affection, and psychomotor [7].

Educators can transform learning [8] using information technology such as computers, mobile phones, and even internet technology are no longer something foreign because most people have already applied and utilized this technological development, even in schools ranging from elementary school to college level high insert the curriculum is Information and Communication Technology as one of the subjects given at school [9]. The transformation of learning in this study is needed not only for the use of information technology but also for how a professional teacher can use learning media through professional teacher communication capable of creating characterized educational leadership.

B. Education Leadership

Learning transformation can improve educational leadership for education students through professional teachers educating students through the education profession. Educational leadership is the role of educators in educating their students in formal and informal education. Education leaders must be based on Pancasila, the 1945 law, presidential decrees, ministerial decrees, and other laws that will influence educational leadership patterns, likewise, about standards relating to his appointment as an education leader (e.g., certification, pattern of selection, profes-

sional qualification). Pancasila, the foundational norm (Grandmom) of the Republic of Indonesia, established on August 17, 1945, stands as a cornerstone of the nation [10].

Leadership is the ability of art to influence human behavior and guide several people to coordinate and direct with specific goals and objectives. To mobilize several implementing people, a leader must have an advantage over the person he leads, for example, the advantages in using his mind, spiritually, and physically [11]. To use the excess, a leader of an organization is facilitated by what is called a task and authority. Diverse interpretations of educational leadership have emerged, encompassing a broad array of knowledge, qualities, attitudes, and competencies, presenting contrasting viewpoints and interpretations with limited consensus regarding the scope and boundaries of this field [12]. Leadership encompasses a pervasive, distinguishable array of human actions that facilitate and aid, particularly in facilitating change.

C. Teacher Professionalism

Teacher professionalism is a view of specific skills needed in a particular job, and expertise is only obtained through special education or training. So professionalism leads to the commitment of the members of a profession to improve their professional abilities and continuously develop strategies that they use in doing work that is by their profession. [13] According to Berry [14] there are three alternative methods used to identify professions, namely: 1) Looking for a set of characteristic or traits associated with professions. 2) Looking for evidence of professionalism, and 3) Developing a model of professional sociological aspects of professional practice.

A student's success in teaching and learning activities relates to several factors above; one of the essential things supporting a student's success in teaching and learning activities is the complete facilities and infrastructure to support teaching and learning activities [15]. Teacher learning media can also influence student achievement. The activity of students in the learning process can be influenced by the learning media used by the teacher. The use of learning media outside students' wishes can result in students being less interested in learning, so students cannot be active in learning [16]. Achievement of learning

achievements greatly influences the existence of adequate teacher learning media and students' activeness in teaching and learning activities.

Thus, teacher professionalism and teacher learning media can determine student learning achievement. It can lead to the level of student learning and the success of school performance. Teacher certification in Indonesia marked a pivotal moment in recognizing and professionalizing educators. [17]

D. Character Education

Character education is an effort that must involve all parties, both households and families, schools and the school environment, and the wider community [18]. Therefore, it is necessary to reconnect the relationships and educational networks that are starting to break up. The formation and character education will only be successful if there is continuity and harmony between educational environments. Thus, households and families must indeed be more empowered as the first and foremost character formation and education environment [19]. However, the nation's character decline in this homeland can be due to the weakness of character education in continuing national values at the time of generation. The state of this nation is very fragile, full of dishonesty, cheating, and injustice in various political, social, and including fields of education.

In fraud education, for example, the teacher feels quite satisfied with his profession but is not responsible for the profession's duties [20]. Of course, this action does not describe a good character and can build and awaken this nation from adversity. A professional teacher is not just an example and imitated in the school environment. But also must be a valued person and even become a role model in the community, and respected in the activities held in the environment because of the responsibility he did [21]. The teacher is a character guide to get to know and understand everything related to education.

Certain people become leaders because they have leadership qualities that are naturally characterized [22]. A leader they admire often underestimates how much that individual may have struggled to curb specific behavior patterns or certain dominant facets of their personality. Great leaders make it look easy. But, most effective leaders work hard on themselves. [23].

II. RESEARCH METHOD

A. Place and Time of Research

The research was conducted at FKIP Nommensen Pematangsiantar Campus. The selection of research sites was determined purposively. The study period was from February 2022 to August 2022.

B. Population and Sample Research

The population in this study were all students of the fourth semester of mathematics study program who attended the Nommensen Pematangsiantar teaching faculty and education science profession.

C. Methods and Research Design

The research methodology employed in this study is the survey research method, accompanied by open-ended questions. This research delves into examining and analyzing a direct causal relationship, often referred to as the "analysis lane." Moreover, as pointed out by Elliot, NVivo12 proves to be a valuable tool in facilitating this specific type of mixed-methods research [24]. Open-ended questions, a standard inclusion in surveys across various disciplines, allow participants to express their unique perspectives on a topic of interest. Nevertheless, analyzing open-ended responses can present challenges, particularly in large sample sizes, where a substantial body of text is generated. While modest, individual responses often lack the depth and context typically associated with qualitative research.

D. Data Analysis

Qualitative data is defined as data that approximates and characterizes. Qualitative data can be observed and recorded. This data type is non-numerical. This type of data is collected through methods of observations, open-ended survey, one-to-one interviews, conducting focus groups, and similar methods [25]. Qualitative data in statistics is also known as categorical data that can be arranged categorically based on the attributes and properties of a thing or a phenomenon. An open-ended survey is a type of survey that allows respondents to answer questions freely without predefined options or categories. This

type of survey is often used to gather qualitative data and elicit more detailed and personalized responses. In an open-ended survey, respondents can express their thoughts, opinions, and experiences in their own words, providing richer and more nuanced data than closed-ended surveys. However, analyzing and interpreting open-ended survey responses can be more time-consuming and complex than analyzing closed-ended survey data. [26]

III. RESULTS AND DISCUSSION

Qualitative data analysis tries to answer questions about what actions people take and what motivates them to take those actions. Collecting and working with this kind of data can be time-consuming because it requires reflection on the part of the analyst.

This discussion explains all the key differences between the two and offers tools to quickly and easily obtain target data points [27]. Firstly, define the research questions and objectives of the study. Secondly, decide on the target population and sampling strategy. Thirdly, develop the survey questions emphasizing open-ended questions that allow participants to express their views and ideas freely. Fourthly, pre-test the survey questions to identify and correct any potential issues. Fifthly, choose a suitable survey platform and mode of administration, such as email, online, phone, or in-person. Sixthly, pilot tests the survey with a small sample of participants to ensure it works correctly. Lastly, launch the study and monitor the data collection process to ensure enough responses are collected from the target population.

A. Qualitative Data Analysis on Openended Survey

Several semi-structured open-ended surveys were collected from lecturers, practitioners, and management at Universitas HKBP Nommensen at Mathematics Education Program Study. Semi-structured open-ended surveys are a type of survey where the questions are designed to be open-ended, allowing respondents to provide more detailed and nuanced answers to the questions:

- Leadership development
- Barrier of learning transformation

- Receiving any training or professional development
- Collaboration among educational leadership
- Implementation learning transformation.
- Benefit of educational leadership
- Support educational leadership in implementation.
- Implementation of character education
- Learning technology
- Limitation with the current learning approaches in educational leadership

Analyzing data using NVivo software that the results of Word Frequency Query that presented the participants use most often. The resulting word cloud can give you early insight into emerging themes and is a fun way to ease yourself into the analysis. In addition, the Word Frequency Query allows you to determine the number of times the selected item appears. Seeing how many words appear can help you identify themes and concepts. Word Frequency Query can run for specific sources, such as files, folders, and externals, as shown in Figure 2. It indicated that leadership, learning, transformation, development, and challenges are essential in education.



Figure 2. Results of word frequency query

The next step is a detailed examination of the answers of critical respondents. They are the dean, director of curriculum and instruction, teacher, and head of the department, and the results of their evaluation are presented in the matrix coding query, as shown in Table 2. The Dean argued that overcoming these challenges will require buy-in from stakeholders, securing additional resources, and gradually introducing

transformative practices. The Director of Curriculum and Instruction stated that adapting to diverse student needs, ensuring consistent character education across schools, and keeping up with technology advancements are ongoing challenges, While the teacher said that they have participated in numerous workshops, seminars, and conferences on learning transformation, character education, and leadership development. Finally, the head of the department commented that limited resources and resistance to change from traditional educational models may be significant barriers.

Table 2. Matrix coding query result of the evaluation of character education leadership

	A:Respondent1 ▼	B: Respondent 3 ▼	C:Respondent 4 ♥	D: Respondent 5
1 : Barrier of learning tra 🔻	1	1	1	2
2 : Benefit of educationa 🔻	1	1	2	1
3 : Collaboration among V	2	2	2	2
4: Implementation learn マ	1	1	1	2
5 : Improvement of char 🔻	1	1	0	1
6 : Leadership developm 🔻	1	1	2	1
7: Learning technology 🔻	1	1	0	0
8 : Limitations with the c V	0	1	0	0
9 : Receiving any trainin V	1	2	1	2
10 : Support educational 🔻	0	2	2	1

espondent 1 – Dean espondent 3 – Director of Curriculum and Instruction espondent 4 – Teacher espondent 5 – Head of Department

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IV. Conclusion

This According through this paper, the results of the discussion of the Character Education Leadership in Universitas HKBP Nommensen can be conclude:

1. Leadership, learning, transformation, development, and challenges are essential in education.

2. Addressing these challenges necessitates a multifaceted approach, as emphasized by various key figures within the educational institution. The Dean underscored the importance of garnering support from stakeholders, securing additional resources, and implementing transformative practices in a gradual manner. The Director of Curriculum and Instruction acknowledged the ongoing challenges of catering to diverse student needs, maintaining consistent character education standards across all schools, and keeping pace with rapid technological advancements. The teacher highlighted their active participation in numerous workshops, seminars, and conferences focused on learning transformation, character education, and leadership development. In contrast, the head of the department raised concerns about limited resources and potential resistance to change, particularly in the face of entrenched traditional educational models.

For future work, character education leadership needs to be developed as an application that can run on mobile devices and be downloaded from Google Play and App Store. The mobile apps should run on every platform, product, and mobile device resolution. So, it can be used by every educator and educational institution.

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