Cybergogy and Heutagogy Learning based on Ternate Local Wisdom for Elementary School Students’ Character Education

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Abstract: This study aimed to assess local knowledge as one of the character formation values of Islamic elementary school students through Heutagogy and Cybergogy learning approach. The writers employed a qualitative method with a post-positivism interpretive phenomenology approach. The research subjects were the fourth, fifth, and sixth-grade teachers and students of SD (Elementary School) in Ternate. The writers collected the data through interviews, observation, and documentation and then analyzed the data using phenomenological data analysis. The results showed that the school applied Heutagogy and Cybergogy approaches in learning activities through online learning instructions combined with local wisdom. The values of local wisdom that supported the formation of student characters were tabea (respecting teachers and elders), dodara ngofa (a sense of love and affection with others), and fohaka biasa toma dodoto madaha (providing an example of habituation in education). These three dominant values formed the student characters.

INTRODUCTION
Digital technology brings about a disruptive era where humans must continue to adapt to changes (Khamisy-Farah et al., 2021; Wasono & Furinto, 2018). Since the widespread of the COVID-19 pandemic, face-to-face learning has been shifted to a virtual learning environment through e-learning, video conferencing, Youtube, Instagram, social media, Google Classroom, Google Site, and many others. The virtual learning environment has increased sharply to keep learning activities organized (Akhvlediani et al., 2020; Gordon & Conaway, 2020; Sohibun & Ade, 2017; Wong, 2020). Educational digital technology changes students’ habits in acquiring knowledge and raising questions about which pedagogy is most appropriate to the 21st-century learning context where life is highly integrated with digital technology (Juhaňák et al., 2019; König et al., 2020; Rafnis, 2019; Smith & Colton, 2020).

Fast learning is required to deal with massive changes in the workplace, where the Internet is the main source of information when any other information comes second, knowledge and skills are increasingly the responsibility of the individual, learning is ubiquitous and nonlinear, most learning occurs through knowledge sharing, and where the role of the teacher or educator has changed. Various learning theories have emerged that try to describe and explain ways of learning in the 21st-century (Agonács & Matos, 2019), for example, Andragogy, Heutagogy, Paragogy, etc.

Heutagogy is a learning concept that places students as the center and in
control of the learning process (Agonács & Matos, 2017; Blaschke & Marin, 2020; Kamrozzaman et al., 2020). This theory provides a framework for designing and developing learner-centered environments combined with current technology that has the potential to equip learners with the skills necessary for lifelong learning (Blaschke, 2017; Blaschke & Hase, 2015; Moore, 2020). Students must have moral ethics or called a character to coexist with technology.

The issue brought by the industrial revolution 4.0 is that humans and humanity are discriminated against by technology so that society 5.0 is born, where humans are the controllers and technology must not eliminate human's humanity (Fukuda, 2020; Gladden, 2019; Shiroishi et al., 2018). Humans must control the world created by technology. Therefore, good characters are instilled from an early age through character education in thematic learning in schools (Hoon, 2014; Marini et al., 2019). Sokatch, (2017) found that characters are important for long-term success.

Character education is a direct approach to instilling moral values and preventing prohibited behavior (Suri & Chandra, 2021) including when working with the digital world. Crimes in the digital world can be more dangerous and have a wider reach. Through character education, life values can be taught, such as honesty, caring, mutual respect, responsibility, and faith (Marini et al., 2021; Santrock, 2011). Positive character formation through education cannot occur automatically (Marini et al., 2021). Therefore, treatment and habituation are needed.

This study seeks to fill the gap to shape and develop students' character from an early age by implementing heutagogy and cybergogy learning based on local wisdom through Islamic religious education subjects.

THEORETICAL SUPPORT

Heutagogy and Self-Determined Learning

Heutagogy is learner-centered learning determined by students. Humans as a learner agency play an active role in making their own learning path, determining learning goals and outcomes, and assessing the learning (Agonács & Matos, 2019; Blaschke, 2019; Praherdhiono et al., 2018). Learner-centered is the core of heutagogy. Furthermore, learner agency is a major component of the theory incorporated into other principles, such as self-efficacy and capability. Self-efficacy and capability are students' perceptions of their concepts understanding to use the acquired competencies in unfamiliar or familiar situations (Agonács & Matos, 2019; Blaschke, 2017, 2021).

Online learning carried out by the teacher only acts as a facilitator since students are allowed to find the information needed, decide what information will be presented, synthesize the results, and convey the results. It implements another principle, namely reflection and meta-cognition, where students reflect on what they have learned, how they have learned it, and how they can improve it. Those processes lead to more effective self-regulation. The reflection process also allows them to practice analytical and critical thinking skills and engage in complex reasoning and problem-solving (Blaschke, 2021).

Lastly, nonlinear learning is a key principle of self-determined learning. The learners do not implement the formal curriculum. They define learning outcomes and how they will achieve them. As a result, learners actively explore multiple pathways to pursue learning goals (Blaschke, 2021). The Internet, particularly social media, supports nonlinear learning by improving technological skills, improving the ability to analyze information found on the Internet critically, and identifying how
and where information can be found (Agonács & Matos, 2017; Northcote & Boddey, 2014; Rusli et al., 2020). The nonlinear learning path can also include communication, collaboration, and connection with others since the learners turn to all possibilities to gain new knowledge inside and outside the classroom (Facer & Selwyn, 2010).

**Cybergogy**

Cybergogy is a virtual learning environment to develop students’ affective, cognitive, and psychomotor abilities. Cybergogy learning at school has been carried out since the Covid-19 pandemic occurred in Indonesia. Technology and heutagogy are intertwined in a symbiotic relationship because technological advances have simplified the process by which students connect and collaborate in various contexts. A growing proportion of learning occurs outside the formal educational environment, where information and learning opportunities are mediated by technology (Brown et al., 2020). Technological recent advances have created new opportunities for learners to have more control over how and where their learning takes place, making learning a continuous process (Blaschke, 2021).

The resulting content can be used to integrate heutagogical principles into teaching, particularly online learning (Gregory & Bannister-Tyrrell, 2017; Praherdhiono et al., 2018). The e-learning environment combines collaboration, interaction, and engagement, which are the main reasons heutagogy is applied to this online environment (Agonács & Matos, 2019; Keserwani et al., 2019). Heutagogy supports the interactive nature of learning using a collaborative approach to assess, provide feedback, and review (Hase & Kenyon, 2013).

**Local Wisdom and Character Education**

Character formation from an early age is an effort to inculcate commendable behavior in terms of worshipping, being good citizens, interacting with other people and the environment, and fostering commendable behaviors that are beneficial for life in the future (Burroughs, 2018). Character building is close to multicultural education, where the cultural and cultural environment will shape students’ characters (Khusniati, 2014; Naviana et al., 2014).

According to Suri & Chandra, (2021), multicultural education, and alternative education, needs to be developed and used as a model for education in Indonesia for several reasons. First, Indonesia is inhabited by various ethnic groups, nations, religions, languages, cultures, traditions, and civilizations. Second, diversity has existed since the founding of the Indonesian nation. Third, society opposes business-oriented education, commercialization, and capitalism that prioritize certain groups of people. Fourth, the community does not want violence and arbitrariness in implementing everyone’s rights. Fifth, multicultural education resists fanaticism that leads to violence and arbitrariness. Sixth, multicultural education provides hope in overcoming various societal upheavals that occurred recently. Seventh, multicultural education has human, social, and spiritual values (Ardhian et al., 2020; Rachmadtullah et al., 2020).

**METHOD**

**Research Design**

The research method used is qualitative research with an Interpretive Phenomenological Post-positivism approach. The unit of analysis is every expression of experiences conveyed by students and their peers in class consciously. Only pure statements from real experiences from the subject/student will be taken and used as research data.
Participants
The participants were the fourth, fifth, sixth-grade students of state elementary schools in Ternate. The sampling technique used was stratified random sampling (Azora, 2021). This study was one of the renewals of thought to explore the noble values of local wisdom, which becomes the spirit in more inclusive social interactions among school members as a mini-society.

Table 1. Profile of Participants

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number of Students</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Male 21</td>
<td></td>
<td>Male: 55 %</td>
</tr>
<tr>
<td></td>
<td>Female 20</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>Male 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female 14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Male 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female 19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>118</td>
<td></td>
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</tr>
</tbody>
</table>

Data Collection
Interview
The writers tried to uncover students’ learning experiences related to Islamic religious education based on local wisdom. The writers conducted interviews using the snowball and purposive techniques. The data obtained from the interviews were the descriptions of the surrounding environment covering students’ social conditions and social relations in the classroom and the school environment.

Participatory Observation
Observation focuses on what should be observed or what happened according to what is seen and heard with the senses. Therefore, the writers obtained data directly, carefully, and in detail. The observations were accentuated on:

1. The research subjects were focused on their age, gender, way of dressing, attitude, behavior, and way of speaking.
2. The surrounding physical environment affected the research subject. The aspects include the place of residence or address and the artifacts to be predicted through the reflection of information by students at school and home.
3. The socio-cultural interaction of school residents is based on information from key informants and accompanying informants, and vice versa (students and teachers).

Documentation
The data obtained from documentation were official and unofficial documents, including statistical data. Researchers collected the document based on sources and types, covering academic and non-academic reports, written reports from the class teacher, and records of important events supporting Islamic religious education learning based on local wisdom developed in the school.

For the validity of research data, the writers need parameters or degrees of data validity through credibility (internal validity), transferability (external validity), dependability (reliability), and objectivity (degree of certainty) (Denscombe, 2010).

Data Analysis
The data analysis technique was the inductive analysis modified from the cycle of phenomenological data analysis (Moustakas, 1994). It aims to facilitate and simplify the inductive phenomenology analysis without reducing the meaning. The cycle is as follows.
RESULT AND DISCUSSION

Description of Research Location and Subject

This research was conducted at SDN 49 Ternate. The selected school taught Islamic religious education oriented to local wisdom and applied Heutagogy, and Cybergogy approaches. The school implemented limited face-to-face learning through double shifts (in the morning and afternoon). However, during the Covid-19 pandemic, the learning was performed online in the morning according to the schedule of each class. An education staff who assisted in teaching provided statements in the following interview:

"The Covid-19 pandemic affected Ternate, which is classified as a red zone. The condition affected the learning process because we must adapt to these conditions. Thank God our school made a special learning schedule to serve the learning, interacting, and communicating. The learning was performed from 07.00-10.00 WIT within 35 minutes, not 45 minutes. However, homeroom teachers and teachers of certain subjects [PJOK and Religious Education] were tasked to carry out “Guling” or traveling teachers program. Once every two days, the teachers came to the students' homes to control the progress of students' learning in their respective homes (LSY, interview, Ternate, July 26th, 2021)."

Based on the statement, during the Covid-19 pandemic, schools made special schedules. However, the limited number of study hours forced the schools to make accurate strategies by conducting "Guling" or traveling teachers programs. This activity allowed teachers to control or supervise the students' progress and achievement after participating in online learning activities through the Cybergogy approach.

The researchers' observations were reinforced by the statement of one senior teacher and the homeroom teacher of class 5A. He stated in an interview after carrying out online learning with students that: "students who were grouped in class A, on average, had more intrinsic motivation or high enthusiasm for learning. This kind of motivation was expected to emerge for implementing the Heutagogy approach that accompanied
the previous approach, namely the Cybergogy approach.

Islamic Religious Education Learning and Local Wisdom as the Forerunner to Strengthening the Character Building of elementary school students in the city of Ternate

The implementation of Islamic religious education by teachers in the school had its own uniqueness. Besides providing material, the teachers related learning materials to the local wisdom values, as stated by the Principal in the following interview:

At school, we developed eight characters: religious, honest, tolerant, disciplined, hard-working, creative, independent, and democratic. The characters are written neatly and displayed in front of the school. It was hoped that students, parents, and school guests could see them. If the characters are seen more often, they will surely be embedded in students' memories one day. It is hoped that each class teacher and subject teacher can develop these values according to their subjects. For example, an Islamic religious education teacher can develop unique local wisdom values. You can ask him later (SMN, Interview, Ternate July 28th, 2021).

Based on the data, it can be interpreted that the SDN 49 Ternate has developed character education. The characters are displayed on the front wall of the school. Thus, providing opportunities for students and teachers to read it at any time, even if only briefly. It was one of the character learning processes as well. Furthermore, creative and democratic values provided opportunities for subject teachers to develop following the subjects they teach. The following is the statements by the Islamic religious education teacher:

Actually, what the Principal said is true. In my opinion, strong support is needed from all teachers and education staff, especially the homeroom teachers. Without supports, the program will not run effectively. It was very difficult at first, but I tried to communicate with the homeroom teachers. I have developed the values of local wisdom of the surrounding area, namely 'tabea' [expressing excuse with a slight bow of head], which is a simple act but contains character values. Also, I have developed 'dodara ngofa' [feelings of love and affection]. Even though there were initially students who were not serious and often forgot, the values slowly started to form (JM, Interview, Ternate, July 27th, 2021).

From this statement, implementing character education through the local wisdom values is very difficult because it requires moral support. This support comes not only from subject teachers or homeroom teachers but also from education staff other than the Principal.

Then the researcher also conducted interviews on July 28th, 2021, with several fourth, fifth, sixth-grade students to learn more about the implementation of local wisdom values as character building. AAS representing his friends stated, "if you are in the fourth-grade, "tabea" is often performed to the homeroom teachers and classmates." MRA, who represented his classmates, stated, "It is a daily habit that my friends and I do to respect each other. Besides performing "tabea," we always smile and reprimand each other." AZA, who represented the sixth-grade students, stated, "The sixth-grade students respect and love each other. We also respect and love the lower-grade students, parents, school staff, and the janitor."
Based on statements, the students have carried out character education development. The activities are also strongly supported by school residents and policymakers (Principals and teachers).

Parents’ support is important in developing character education based on local wisdom so that there is a continuation at home and not only at school. The statement is also supported by (Ramdani, 2018; Widyanti, 2015), who states that a daily list that records several character values based on local wisdom is important. Moreover, the values developed by the religious teacher supported by the homeroom teachers are the local wisdom values. There are 97.67% of students of SDN 49 Ternate who implement mother tongue or local language at home.

CONCLUSION
Heutagogy is a reasonable and aligned approach to 21st-century learning. Heutagogy is implemented based on learner agency, self-efficacy, capability, metacognition, and reflection appropriate for online learning and today’s technology. Furthermore, it is also carried out to shape the students’ characters. The local wisdom values implemented at SDN 49 Ternate city are "tabea" (respect for teachers and other education personnel at school), "dodara ngofa" (mutual love for classmates and friends in other classes), and "fohaka biasa toma dodoto madaha" (habitation) In its application, all elements must work together, including teachers, parents, and even the community because the environment plays a major role in shaping students’ character and personality.

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