CAN TECHNOLOGY-ENHANCED FLIPPED LEARNING INSTILL CHARACTER EDUCATION? INDONESIAN UNDERGRADUATE EFL STUDENTS' PERCEPTIONS

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Abstract: The advantages of incorporating technology-enhanced flipped learning in English classrooms are nothing new. However, the impact of incorporating the learning method on the occurrence and decline of students' characters has not much been revealed. This study aims to fill the void by exploring the students' perceptions of whether flipped learning and the use of technology in learning English can instill character education. Eighty-four (n=84) Indonesian undergraduate EFL students participated in this study. A 22-item questionnaire with a checklist and open-ended types was filled out after the students completed a 16-week course. While percentages were obtained from the checklist responses, codes and categories were generated from the open-ended responses. The results revealed that flipped learning could instill character values of responsibility, independence, and curiosity. The in-class group discussion was considered as the most contributing activity to the instillment of character values. Character values of religiosity, patriotism, and nationalism were less occurred among the students. Furthermore, the use of ICT-based learning media such as YouTube, WhatsApp, the Internet, and mobile phone could instill character values of independence, creativity, teamwork, activeness, and criticality. However, few students perceived that such learning media could influence them to commit cheating or become less concentrated during group discussion. This study emphasizes the teacher's roles in designing learning activities oriented to developing the students' English language skills and character.
Keywords: *Character education; flipped learning; Indonesian EFL students; perceptions; technology-enhanced learning.*

INTRODUCTION

Character education is an endless discourse to be discussed, even in this more globalized education era. The stipulation of character education is following the goal of education in 2030, mentioned by Organisation for Economic Co-operation and Development (OECD, 2018) that learning approaches in the education 4.0 era are to create future-ready learners. Those learners are expected to have active, responsible, aware, and engaged characters to be the agents of change. It is strengthened by previous literature (Singh, 2019) that character education in this 21st century aims to develop students' commitment to be responsible, caring, and contributing citizens for the success of establishing a democratic young society. Today's learners including in the English learning context are, therefore, encouraged to be involved in a

student-centered, contextual, community-integrated, and technology-enhanced learning environment.

Character education (CE) is nothing new in the education sector since it is associated with integrating values into teaching and learning and values and education are inseparable (Mohamad, Sihes, Bohari, & Uda, 2020). The basic concept of character education is the conscious action to instill and habituate moral virtues (Singh, 2019). Therefore, this deliberate action is intended to make the students "knowing the good, loving the good, and doing the good". Character is associated with moral judgments and represents all personal qualities that make one worthy (Pala, 2011). It denotes the consistency of manifesting virtues or good habits.

Previous scholars (Chang & Chou, 2015) clarified the concept of the character itself as one's dispositions or personal traits that influence how they respond to diverse circumstances. Qoyyimah (2016) further explained that character education is focused on the students' academic needs and moral development simultaneously. Conclusively, character education is a deliberate action to develop students' character by cultivating virtues or character values, referring to the moral standards, and raising their awareness of maintaining those values in diverse situations. Hence, teachers play an important role to realize the process of transmitting such values to their students.

Character education has been discussed in the previous literature (Astuti, Aziz, Sumarti, & Bharati, 2019; Sarkadi, Casmana, & Rahmawati, 2020), particularly in the Indonesian context. The encouragement of character development from the education sector is fundamentally based on the goal of national education system. Although character education is not formulated as a formal subject, it is integrated into all subjects and activities to shape the students' strong personality (Muhtar & Dallyono, 2020). Rooted in Pancasila (Five Pillar of Indonesian Ideology), the policy related to the national education system clearly states that character education is a pivotal and prioritized means of realizing national development mandated in the Planning of National Long-Term Development from 2005 to 2025. We adapted the 18 character values from the Guideline of the Implementation of Character Education (Center of Curriculum and Books, 2011): Responsibility, Independence, Curiosity, Discipline, Honesty, Tolerance, Creativity, Love to Read, Hard work, Appreciation towards others' achievements, Social Awareness, Friendliness / Communicativeness, Peace, Democracy, Environment Awareness, Religiosity, Patriotism, Nationalism.

In a more digitalized era, Chang and Chou (2015) emphasized that the educators must develop students' understanding and awareness of online moral standards and misbehavior. They further explain that the core virtues in a cyberspace comprise respect, honesty, integrity, care, patience, fairness, and justice. Those virtues are rooted in the basic concept of character education.

It is then relevant to examine character education in a Technology-enhanced language learning (TELL)-based learning environment. TELL has long been a helpful approach to cater to the students' needs in the learning process. Technology-enhanced learning is defined as an instructional approach to enhance learning and teaching through technology (Kirkwood & Price, 2013). This approach is intended to make the learning process cost- and time-effective, sustainable, improved, and positively transformed. TELL is conceptualized as using technology to accomplish certain language tasks or achieve instructional goals "using technical processes, methods, or knowledge" (Shadiev & Yang, 2020, p. 1). The use of technology assists the students to retrieve, produce, and disseminate knowledge in a more open and flexible learning atmosphere. Those merits may raise the students' awareness of enacting responsible, cooperative, active, confident, critical, and respectful characters.

Several research (Aghni, Vianty, & Petrus, 2020; Ashfihana, 2021; Islami, 2016; Noprianto, Suherdi, & Muslim, 2022; Qoyyimah, 2016) has investigated the implementation of character education particularly in the Indonesian EFL context. Qoyyimah (2016) conducted a study on character education in Indonesian state schools. She analyzed the EFL teachers' lessons to explore how they understood their roles in enacting moral curricular reform in the classroom. The data from interview and classroom observation revealed that the EFL state school teachers viewed that the implementation of character education should be done through invisible pedagogy where moral values were infused implicitly in designing their classroom activities. However, on certain occasions, they explicitly informed the importance of the values through visible pedagogy. In a more comprehensive manner, Aghni *et al.*'s (2020) study showed that CE could be

applied through several strategies such as group discussion and individual assignment. The use of instructional methods such as group discussion to instill character values was justified in another study conducted by Ashfihana (2021) in the pre-service English teachers' teaching practice program. Ultimately, CE could serve as a pivotal means of maintaining the students' character development, as what Noprianto *et al*. (2022) found in their study.

Previous studies have also been concerned with the infusion and development of character values in the teaching and learning resources. For example, Darmayenti, Besral, & Yustina (2021) developed EFL textbooks, which included religious characters and local wisdom. The results showed that the language experts and students strongly agreed on the inclusion of religious characters in each chapter of the textbook. Additionally, Ashfihana (2021) explained that the pre-service teachers expressed some personality traits such as honesty, trustworthiness, respect, and responsibility in the lesson plans.

In the context of TELL, Chang and Chou (2015) explored the perceived e-character education (e-CE) among 2495 of 2868 Taiwanese teachers from 556 elementary and 400 junior high schools by distributing a questionnaire, conducting a focus group interview, and doing a content analysis of teachers' posted articles. The results generally disclosed three categories of virtues considered essential to be taken into account: self-oriented, interpersonal/social-oriented, and individual-society-oriented virtues. The four most essential cyberspace virtues were law abidance, respect, self-discipline, and sharing, and they were interconnected with one another in a cyberspace-driven learning design.

Husna, Purnawarman, Suherdi, & Lubis (2019) reviewed fourteen published research-based articles mainly related to the potentials and drawbacks of using YouTube for the 21st- century English language e-learning. The findings informed that YouTube could indirectly instill several character values manifested in the forms of autonomy, teamwork, professionalism, creativity, and reflection. The development of students' autonomy was also identified in the flipped English learning in Tsai's (2019) study. Albeit not explicitly related to character education, the findings confirmed Qoyyimah's (2016) invisible pedagogy. The learning activities designed in an online learning environment could enable the students to foster their independence character value as the manifestation of learner autonomy in learning English.

However, inculcating character education in this digital age to students is not an easy way out. One of them is articulated by Noprianto *et al*. (2022) that integrating CE into the curriculum has not been optimally carried out. This should be taken into a serious account since the students might be dealing with the opposing sides of using technology such as cyberbullying, sexting, academic dishonesty, and other types of characters' decline. In a more specific context, English language teaching, some issues are reported in a review of TELL studies by Shadiev and Yang (2020). They found that technology use may generate inappropriate feedback, trigger students' frustration, and distract the learning process. Those drawbacks can result in the decline of characters where the students do not manifest hard work, curiosity, and discipline character values.

Moreover, research on the perceptions of character education among undergraduate EFL students in a flipped learning environment, assisted by the use of technology is still scant. Flipped learning is a learning method integrating the concept of TELL into the learning process. It is often termed as flipped classroom, inverted classroom, or reverted instruction. It is an instructional method through which the monologue teaching process is done outside the classroom, enhanced by the use of various educational technology (Akçayır & Akçayır, 2018; Webb & Doman, 2020).

Incorporating flipped learning is found to be a useful method in the ELT context. A review done by Turan and Akdag-cimen (2020) showed that flipped learning can encourage activeness, boost up self-confidence, foster autonomy, and enhance collaboration. Flipped learning was also perceived beneficial to enhance the students' willingness to communicate (Amiryousefi, 2017), rendering the increased interactions and active participation among the students (Hung, 2015). Flipped learning also enables the students to be less anxious in learning English, which could influence their level of learning motivation. Turan and Akdag-Cimen (2020) further revealed that the incorporation of flipped learning could develop students' learning strategies and thinking skills.

Apart from the merits of incorporating flipped learning in the EFL classrooms (see Turan & Akdag-cimen, 2020 for a comprehensive review on this

topic), the challenges remain in the surface of conversation. Such a learning method is perceived burdensome for some students because they experience an increased workload, compared to the traditional learning mode (i.e. monologue teaching in the classroom, followed by exercises outside the classroom). Hence, investigating the potential of incorporating flipped learning to instill character education among EFL students particularly in the Indonesian context is pivotal to better inform the pedagogy of English in accordance to the Indonesian principles of character education in the higher education settings.

Raised by these concerns, the present study explores character education and the decline of characters in learning English using the technology-enhanced flipped learning method from the Indonesian undergraduate EFL students' perceptions. The following research questions drive this study.

RQ 1: What character values are occurred and less occurred among Indonesian undergraduate EFL students through flipped learning? What activities are contributing to the instillment of the character values?

RQ 2: What character values are occurred and declined among the students through the use of ICT-based learning media?

METHOD

The present research was designed as a descriptive qualitative study (Creswell & Creswell, 2018) because it was intended to describe the Indonesian EFL students' perceptions of the potentials and drawbacks of technology-enhanced flipped learning in instilling character education. Specifically, this issue was investigated from the activities and the ICT-based learning media used in the classroom. In the Indonesian higher education context, the stipulation of character education is based on Indonesia's ultimate goal of national education system to develop learners' skills and noble characters simultaneously.

One-hundred first-year undergraduate students in a private university in South Jakarta were involved in the entire course. Their major is information technology. However, only 84 students returned the questionnaires in this study. Eight students could not fully participate due to administrative affairs or health issues. Another ten students did not return the questionnaire. The students were divided into three

classes (Class A=34 students, Class B=33 students, Class C=33 students). The reason for choosing the research site was that although the university is known as a technology campus, the instillment of noble character values has been the core of teaching orientation among the lecturers in the three learning domains: cognitive, affective, and psychomotor domains. The students had also given their consent to participate in this research.

This study employed a questionnaire to obtain the data. Table 1 depicts the details of the questionnaire (Checklist=11 items, Open-ended=11 items). The formulation of the questionnaire items regarding character education was referred to the Guidelines for Implementing Character Education (Center of Curriculum and Books, 2011) where there are eighteen characters enumerated in the guidelines. Three more character values, i.e. patience, initiative, and perseverance, were added from related literature. The "Love Nation" and "Spirit of Nation" character values were redefined as nationalism and patriotism, respectively. The researchers did formulation of the items related to the decline of characters by reflecting on previous literature.

Table 1. *The details of the questionnaire items*

Item No.	Item type	Objective
1, 3, 5	Checklist	Occurrences of character values through flipped learning activities
2, 4, 6	Open-ended	Reasons for the responses in item 1, 3, 5
7, 11, 15, 19	Checklist	Occurrences of character values through the use of ICT-based learning media
9, 13, 17, 21	Checklist	The decline of characters from the use of ICT-based learning media
8, 10, 12, 14, 16, 18, 20, 22	Open-ended	Reasons for the responses about character education through and the decline of characters from the use of ICT-based learning media

The questionnaire was formulated by using the Indonesian language to avoid misunderstanding or misinterpretation. Additionally, an extra "Other" option was provided in every checklist item if the students had different choices not available in the list. Because the open-ended items were not set compulsory to fill out, some students explained only several chosen character values. The students filled out the questionnaire after completing the sixteen-week semester from September to December 2019. All students reported that no questionnaire item or response option was ambiguous, unclear, or difficult to understand.

The first author served as the teacher as well in this research. The teaching process was conducted before the COVID-19 pandemic situation. The teacher spent an extensive amount of time to prepare for the learning design and materials. All teachers obtained an official training session from the campus to operate the Moodle-based Learning Management System (LMS). In the pre-class session, the students were encouraged to study the materials posted in the LMS by the teacher several days before the class began. They were also allowed to enrich their knowledge by exploring other relevant resources to get themselves ready to participate in the in-class activities. Several follow-up questions were provided to evaluate their understanding of the lessons.

The in-class hours were mostly spent by group discussions where each student had a particular role to play (e.g., discussion director as the person who managed the flow of discussion). The learning process continued with group exercises. Afterwards, the teacher allocated some time for an inter-group sharing, followed by reinforcement and feedback. The activities were intended to confirm the students' comprehension and to activate peer learning so that the sense of interdependence toward successful learning process could be nurtured. In the after-class session, the students were given individual exercises to strengthen their grammar skills.

Once the students completed the questionnaire, the data analysis process was done in two stages. In the first stage, the responses of each checklist item were analyzed by using descriptive statistical technique. The number of students choosing each questionnaire item was divided by the total number of student respondents and multiplied by 100%. Meanwhile, the responses of each open-ended item were analyzed by applying a qualitative data analysis technique (Creswell & Creswell, 2018). Coding and categorization were conducted based on the eighteen character values. The analysis results were then sorted out to address the research questions. Finally, the selected excerpts were translated into English carefully to get the same meaning as the Indonesian version.

RESULTS AND DISCUSSION
Results
Occurred and less occurred character values through flipped learning in an EFL classroom

Table 2 depicts the overall results of manifested character values in the learning activities through flipped learning. The results showed that although no character value obtained by 100% of students, flipped learning has instilled the manifestation of all character values. The top three character values were: responsibility (67%), independence (51%), and curiosity (51%).

Table 2. *Occurrences of character values among the students*

No.	Character values	Number of students (n=84)	Percentage
1	Responsibility	56	67%
2	Independence	43	51%
3	Curiosity	43	51%
4	Discipline	41	49%
5	Honesty	37	44%
6	Tolerance	36	43%
7	Creativity	36	43%
8	Love to Read	35	42%
9	Patience	33	39%
10	Initiative	33	39%
11	Hard work	32	38%
12	Appreciation towards others' achievements	31	37%
13	Social Awareness	30	36%
14	Friendliness / Communicativeness	26	31%
15	Peace	16	19%
16	Perseverance	15	18%
17	Democracy	10	12%
18	Environment Awareness	9	11%
19	Religiosity	8	10%
20	Patriotism	5	6%
21	Nationalism	4	5%

Several pairs of character values, however, were found to conform. Independent character value did not necessarily represent initiative (51% and 39%, respectively). The act of being honest in learning English was perceived to be more triggered by the students than the actualization of being a religious person (44% and 10%, respectively). However, one of the manifestations of religiosity character value could be in the form of honesty. Responsibility character value was also not in line with hard work and perseverance character values (67%, 38%, and 18%, respectively). The number of students who experienced the development of tolerance character value was higher than that of democracy character

value (43% and 12%, respectively). It means that the students held different views on the boundary of defining the character values mentioned above.

Regarding the less occurred character values, no character value obtained 0% of the students. As envisaged, the bottom three character values occurred in the present study were: nationalism (5%), patriotism (6%), and religiosity (10%). Environment awareness was less occurred as well (11%). The findings were further described in the following excerpts.

> During discussion, we also often use English. In addition to that, we also care less about the environment. It is due to the use of excessive papers in doing the task. (Environment awareness)

> Because we learn English is not a matter of religion. (Misunderstood religiosity)

The less occurrence of environment awareness was associated with the students' habitual action to use excessive papers when accomplishing the assignments. They already understood the reasons behind the less occurrence of those character values. Such understanding becomes worthy modal to regularize those character values in flipped English learning.

Furthermore, the analysis results pertain to the potentials of flipped learning activities in instilling character education. Table 3 displays the overall descriptive statistical results. The results demonstrated that most of the students experienced the development of character values from the group discussion in the classroom compared with other learning activities (88%). Almost half of them also thought that group discussion in the learning management system helped maintain certain character values (48%), followed by role-based assignments in the third position with 45% of the students. The least activity perceived to be useful in instilling character education was understanding learning materials from the teacher (31%).

Table 3. *Character education through the learning activities*

No.	Learning activity	Number of students (n=84)	Percentage
1	Group discussion in the classroom	74	88%
2	Group discussion in the LMS	40	48%
3	Role-based assignments	38	45%
4	Searching for additional materials from the Internet	35	42%
5	Weekly assignments	30	36%
6	Teacher's monologue teaching	27	32%
7	Understanding learning materials from the teacher	26	31%
8	Other	0	0%

The findings were corroborated by the students' further explanation when learning English in the flipped classroom, as in the following excerpts.

> Each group member is given the responsibility to present the material according to the role given. From there, I become more responsible to make the discussion run smoothly. (Responsibility)

> In group discussions, of course, given the tasks and responsibilities, we learn to respect each other's differences of opinion and carry out our respective responsibilities properly. (Tolerance)

> It shapes me to be a person who achieves goals together, not alone. (Interdependence)

> I think that the discussion is quite important for myself, because it can help increase my confidence to convey information to friends. (Self-confidence from responsibility)

The students argued that the role-based group discussion in the in-class session encouraged them to understand the responsibilities of each group member. Hence, they got an equal portion to participate and collaborate to achieve the intended goals. Such in-class activity also triggered them to be more tolerant with different perspectives. This character value could be the catalyst for lessening the gender- or proficiency-based exclusiveness of participation because every single voice was considered to achieve mutual goals and understanding. It also developed the students' awareness that every group member contributed to achieving the goals. Some other students posited that the group discussion encouraged them to increase self-confidence because every group member should present something based on the assigned role.

Character education and the decline of characters from the use of ICT-based learning media

In this sub-section, the analysis results were compared among the four types of ICT-based learning media used in the flipped classroom to enhance the students' English language learning, i.e. YouTube, WhatsApp, the Internet, and Mobile Phone. The separation of Mobile Phone from the other three applications was because we intended to explore the effect of each type of technology on the students' character education and the decline of their characters. Figure 1 shows the overall results. The bar chart generally exhibited character education through all learning media, but no character value ranked the first position in all learning media. While no character value was perceived as manifested in the flipped classroom by more than 60% of the participating students, the development of criticality character value from all learning media in learning English was experienced by the least number of students.
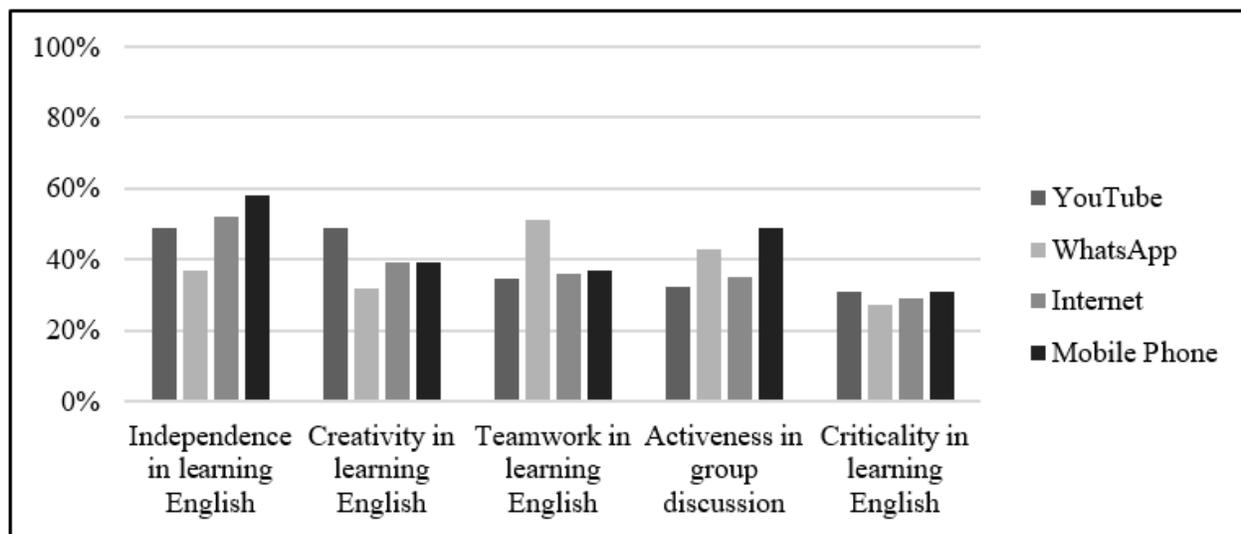

Figure 1. *Occurrences of character values from the use of ICT-based learning media*

Specifically, the students perceived that YouTube, like social media, could instill character education, such as independence and creativity in learning English (49%, respectively) more than the other three character values. Meanwhile, although WhatsApp was categorized as social media, it could not develop character values of independence and creativity more than through the use of YouTube. The development of teamwork and activeness character values was most noticeable (51% and 43%, respectively) from WhatsApp. Criticality in learning English was the least induced character value in WhatsApp (27%) compared to the other three learning media. Like YouTube, the Internet as a worldwide system of computer networks was believed to spark students' independence and creativity character values (52% and 39%, respectively) more than teamwork, activeness, and criticality. The mobile phone was the most contributing ICT-based learning media in developing the students' character of independence in learning English (58%) and activeness character value in group discussion (49%). The following excerpts further explained the reasons for the findings mentioned above.

> You watch it yourself and you have to understand if you don't understand, just ask a friend. (Independence)

> By using YouTube, we can think more broadly and freely. A lot of material can be found on YouTube. I feel freer to improvise when watching YouTube. When you practice watching YouTube instead of reading it feels better. (Creativity)

> I could learn a lot of things from the internet. It is easy to operate, fast, and free. (Independence)

Because the teacher inverted the learning process where the monologue teaching was done outside the classroom by giving some curated YouTube videos, some of the students argued that it triggered them to actualize self-paced or independent learning. Hence, their independence could be fostered by understanding the materials autonomously and

asking for help from their friends instead of their teacher if they encountered difficulties understanding the materials. Some of the students also stated that the presence of multimodal learning resources in YouTube videos enabled them to have more freedom and access to improvise while learning English. The multimodality of YouTube videos could then enhance their creativity skills. Likewise, the Internet allowed them to quickly, freely, and quickly get access to numerous learning resources. This could make the students autonomous in executing their learning process.

> We hold discussions in various places and ways. We can do it directly face to face, use messaging

applications on e-learning, or social media such as WhatsApp, for example. (Flexibility toward independence)

> Sometimes we get motivation from group friends through WA. Through WA, we can work together with friends, exchange ideas / knowledge. (Teamwork)

> WhatsApp makes it easier to communicate. We can ask a friend during e-learning. Communication is made easier. For example, in terms of division of the tasks, I often ask about the materials or role selection in the WA group. (Activeness)
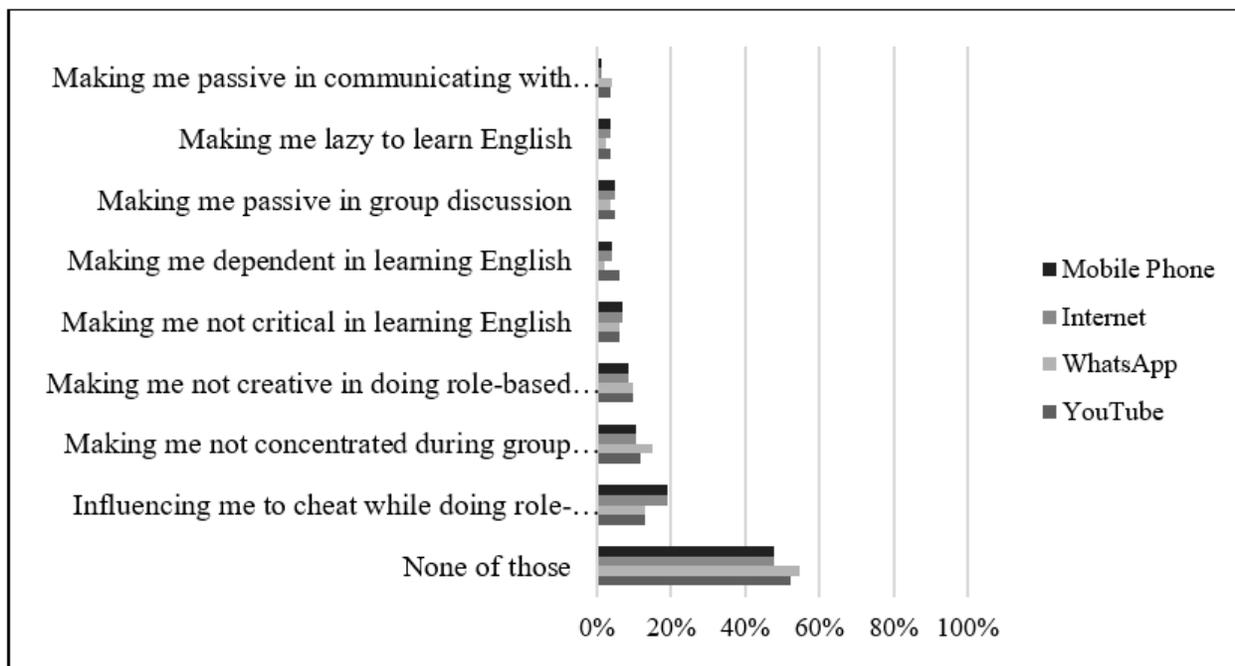

Figure 2. *Types of the decline of characters from the use of ICT-based learning media*

ICT-based learning media such as WhatsApp or the LMS enhanced a self-paced or personalized learning atmosphere so that the students could determine how they executed every single learning stage. The learning media also helped them coordinate to run the discussion smoothly. WhatsApp group was also considered a practical means of promoting teamwork character value because they could accomplish the assignments together. Such social media could facilitate direct group communication to exchange some important information with one another. Some students also asserted that the ease of communication through the WA group enabled them to ask about the materials or the role-based assignments.

> We feel more free and open by using mobile phones as the learning medium. The features of the mobile phones make it easier for me to access anything, including the learning materials. (Independence)

> Mobile phones make it easier to communicate with the group members. (Activeness)

Because WhatsApp and Internet can be accessed by using mobile phones, the students' explanation for the development of character values through mobile phones is similar. They asserted that mobile phones enabled them to explore learning materials. Such personalized exploration could then foster their independence. Likewise, the compact version of

mobile phones could ease their communication process before the role-based group discussion. This helped the students keep practicing the character value of being active in the flipped classroom.

On the other hand, the use of ICT-based learning media was still believed by several students to be the contributing factor to the decline of characters. Figure 2 exhibits the overall results. In general, none of the types of the decline of characters obtained 0% or 100% students. Among the eight types of the decline of characters, the students perceived that ICT-based learning media mostly influenced them to commit academic dishonesty such as cheating while doing the role-based assignments (Average=13 students or 16% of 84 students). In contrastingly, the students thought that ICT-based learning media were much less influential in making them passive in communicating with their friends during group discussion (Average=2 students or 2% of 84 students).

In particular, the use of mobile phone and the Internet were perceived to be contributing to the decline of characters, especially cheating while doing the role-based assignments more than YouTube and WhatsApp. Meanwhile, YouTube and WhatsApp as social media-based learning media were considered influential in making them not practice creativity character value during the completion of role-based assignments more than mobile phones and the Internet. These social media tended to influence the students to commit cheating as well. The following excerpts represent the students' opinions regarding the decline of characters from ICT-based learning media in the flipped English classroom.

> It's so easy for me to get the materials that we usually just copy them without editing. (Mobile phone)

> Sometimes, we have fun chatting instead of working on the materials and do cheating. (WhatsApp)

> Because I always see the examples on YouTube without trying to figure it out by myself first. (YouTube)

> Because when there is a trouble I just have to search for the solution in the Internet. The use of the Internet sometimes makes me not improve my critical thinking. (The Internet)

Few students experiencing the decline of characters opined that the usability and flexibility of the ICT-based learning media to get access to the various learning materials or resources made the students tend to do copy-pasting. This behavior could result in the manifestation of uncreative character among the students. Even worse, the copy-pasting behavior made them uncritical every time they dealt with problems or difficulties. Ultimately, they tended to commit cheating by exploiting those ICT-based learning media.

Discussion
This study has delineated character education and the decline of characters among Indonesian undergraduate EFL students through the incorporation of technology-enhanced flipped learning method. Regarding the first research question, the results generally show that flipped learning can instill character values. Of twenty character values, responsibility, independence, and curiosity are the top three most frequently occurred in the English classroom, as perceived by the students. Meanwhile, the bottom three character values mostly perceived are religiosity, patriotism, and nationalism. The findings justify previous research (Aghni *et al.*, 2020; Chang & Chou, 2015) that responsibility is considered an essential interpersonal or social-oriented virtue. Islami (2016) also found that independence and curiosity character values were instilled during the lessons at a madrasah (Islamic-based) school.

Another worth-noting point is that technology-enhanced flipped English learning emphasizes an active, engaged, and autonomous learning process where the students are encouraged to be responsible for their learning; in other words, autonomous (Tsai, 2019). This learning design enables the instilment of the three character values because the students plan, execute, monitor, and evaluate their learning activities by themselves in a flexible learning environment.

On the other hand, the less occurred character values of religiosity, patriotism, and nationalism may be caused by the composition of the learning materials and themes, which are not related to culture learning. The lessons focus on the students' development of grammar skills to be applied in a more productive discourse such as speaking and writing activities.

However, as one of the least perceived character value in the present study, religiosity is considered among the common character traits in Ashfihana's (2020) research. This discrepancy can be influenced by the students' perception of the mere association of religiosity with the enactment of specific spiritual activities or rituals such as praying before conducting the learning process and the like, which are not explicitly done in the classroom. Hence, the learning materials and learning activities in the classroom can affect the students' perceptions of character education. It is essential for future research to provide detailed explanation regarding the domains where each of the character values can be enacted during the learning process.

Another important aspect is related to the learning activities, which influence the students to manifest character values in the flipped classroom. The results demonstrate that the in-class session through group discussions triggers their motivation to actualize the character values more than the other activities, followed by a group discussion in the LMS and role-based assignments. This resonates with the characteristics of flipped learning, i.e. active and collaborative. Previous research (Aghni *et al.*, 2020; Ashfihana, 2020) also noticed that group discussion can be a useful means for enacting character education; particularly respect and responsibility character traits. In the current study, the teacher assigns some roles to the students to drive the discussion process, followed by the assignments to strengthen their ability in that lesson. Additionally, collaborative learning can develop students' characters more than traditional learning, such as lecture or recitation. It also resonates with the principle of cooperative learning (Foldnes, 2016), which underscores positive interdependence and individual accountability, to mention a few. Such a learning climate, which encourages the students to make shared decisions on their learning, be on-time every time the discussion is about to start, and respect other people's opinions, implicitly influences the development of their characters. Hence, the character values of discipline and tolerance also occurred in the present study.

Furthermore, this study explores the students' perceptions of whether the use of technology can also instill character education while learning English. The findings generally reveal that the main ICT-based learning media used in the present study, i.e. YouTube, WhatsApp, the Internet, and mobile phone, seem to help the students develop the character values of independence, creativity, activeness, teamwork, and criticality. While the utilization of YouTube, mobile phone, and the Internet contributes most to the development of independence character value, the advantage of using WhatsApp is more on the development of teamwork and activeness character values. Husna *et al.* (2019) also found that using YouTube videos could foster the character value of independence toward increased autonomy among EFL students. On the other hand, the WhatsApp application enables the students to have an active interaction to succeed in the group discussion. Indirectly, they become more collaborative and active as the instilment of teamwork and activeness character values.

Goodchild and Speed (2018) asserted that social media- and mobile-based learning from the mid-2000s to the present-is getting ubiquitous in the higher education context in line with technology advancement and human mobilization. Therefore, those learning media are used to cater to the current pedagogical approaches, such as social constructivism through borderless interaction and collaboration. Ultimately, the proper combination of ICT use and L2 pedagogical approaches can cultivate strong character values toward future-ready learners.

However, using ICT-based learning media as part of the elements of technology-enhanced flipped English learning may cause the decline of characters. One particular type of decline of characters identified in the present study is associated with cheating. Two factors may cause the practice of cheating as part of academic dishonesty. First, some of the students seem not cooperative enough, although they have been assigned to a particular role. Second, some of the instructions in the teacher's assignments are not clear enough, resulting in confusion among the students. Both factors can result in academic dishonesty by copy-pasting the ideas from YouTube or the answers from the Internet using a mobile phone. Even worse, one of the students reported that his classmates sometimes asked him to do their role-based assignments, representing facilitation (Blau & Eshet-alkalai, 2017). We posit that teachers' role is pivotal in selecting the ICT-based learning media to help run the learning process and crucial in evaluating the potentials of those learning media to monitor and identify academic dishonesty. This reinforces the importance of integrating moral

education into the EFL curriculum through methods, activities, and resources determined by the teachers.

CONCLUSION

The present study has addressed the research questions regarding the possibility of a technology-enhanced flipped English learning method to instill character education among Indonesian undergraduate EFL students. The contribution of the present study lies on two findings. First, the incorporation of flipped learning can instill character education among the students in learning English language by implicitly integrating certain character values within the learning activities. Teachers still play a pivotal role in this context. Second, apart from the merits of using the ICT-based learning media in instilling character values of independence, creativity, teamwork, and criticality, the decline of characters such as cheating still becomes the major concern in the realm of TELL in the higher education context. Again, we argue that a deliberate combination of ICT use and L2 pedagogical approaches can better cultivate strong character values toward future-ready learners as the ultimate goal of 21st-century education.

The present study must be viewed with caution. The comparative results of how EFL students across genders and English proficiency levels view character education through technology-enhanced flipped English learning are still lacking. Additionally, the exploration of an effective instructional design in lessening academic dishonesty is worth-doing. Rigorous methods are recommended to develop the current L2 pedagogical approaches in this more digitalized era.

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