

FOOD SECURITY AND INFORMATION LITERACY OF DIGITAL YOUTH IN LAMPUNG

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Abstract

Food security is a critical global and national issue, including in Indonesia. In the digital and post-truth era, late adolescents as digital natives and members of the pre-marriage age group require adequate information literacy to support food security. This study analyses the construction of food security meaning in relation to the information literacy of late adolescents in Lampung. Drawing on social constructivism, information literacy models, agenda-setting theory, and information processing theory, the study employed a mixed-method approach, primarily using quantitative analysis supplemented by observations and interviews. Data were collected from 100 adolescents aged 18–24 years across 11 regencies in Lampung Province. The results show that food security (mean = 2.9867) and information literacy (mean = 2.6557) were both in the moderate category. Adolescents were relatively capable of accessing and understanding food-related information but remained less critical in evaluating its accuracy. Their understanding of food security was also influenced more by parents and peers than by critical literacy. Information literacy significantly affected food security, although its contribution was small ($r^2 = 0.0743$), with a weak positive correlation ($r = 0.2873$). These findings emphasize the need for contextual information literacy education and youth-oriented digital food communication strategies.

Keywords: food security, information literacy, late adolescents, post-truth era.

INTRODUCTION

The issue of food security is increasingly occupying a strategic position in global and national discourse. A 2023 report by the Food and Agriculture Organization (FAO) states that more than 735 million people worldwide still face hunger. This figure has

increased compared to the previous decade due to climate change, conflict, and the COVID-19 pandemic. Furthermore, the FAO warns that young people are particularly vulnerable due to their dependence on sustainable food systems for their future health, education, and productivity.

Although Indonesia is known as one of the agrarian countries, food security challenges remain a significant topic of discussion. The Ministry of Agriculture's (FAO, 2023) categorizes Indonesia's food security as moderate, citing significant regional disparities. Lampung Province, as one of the agricultural hubs, faces complex problems, including dependence on certain commodities, climate vulnerability, and limited distribution. In Indonesia, this issue is also relevant. As an agrarian country with a population of over 275 million, Indonesia still faces problems such as distribution disparities, urbanization, and changing consumption patterns (BPS, 2023)

The Global Food Security Index data (FAO, 2023) places Indonesia at 63rd out of 113 countries, indicating serious challenges, especially in terms of nutritional quality and food accessibility. Lampung Province, as one of the national food barns, plays an important role but also faces specific problems: dependence on main commodities (rice and cassava), uneven distribution infrastructure, and low involvement of the younger generation in food management practices.

In this context, the construction of food security and information literacy plays a crucial role. (Potter, 2013) explains that literacy encompasses cognitive processes that enable individuals to analyse messages, compare new information with existing knowledge, evaluate the quality and credibility of that information, and ultimately engage in abstraction—organizing new understanding within a broader framework of knowledge. This essay emphasizes that literacy is an active process in which individuals do not merely receive information; instead, they actively filter, match meanings, and construct their understanding. Therefore, literacy necessitates critical skills that empower individuals to navigate the overwhelming flow of information, particularly in the post-truth era.

In alignment with Potter, UNESCO (2017) emphasizes in the Global Media and Information Literacy Assessment Framework that literacy involves critical cognitive abilities, which range from analysing to evaluating information. These skills enable individuals to cultivate a reflective and responsible attitude toward media and information use. In the digital era, the complexity of information literacy has increased, as the vast flow of information is often interspersed with disinformation, hoaxes, and biased media framing (Head, 2020)

The phenomenon in the post-truth era has worsened the situation. According to (McIntyre, 2018)), the post-truth era is characterized by a decrease in the authority of scientific knowledge, a weakening of the boundaries between fact and opinion, and an increasing role of digital media in producing and multiplying biased or misleading information. On social media, algorithms reinforce this phenomenon by creating echo

chambers and filter bubbles that expose individuals more frequently to information that aligns with their views (Pariser, 2011)

For adolescents, the post-truth condition presents serious challenges to information literacy, as they are in a psychological developmental phase in the intensive process of seeking identity (Erikson, 1968). Without adequate skills in analysis, evaluation, and abstraction, adolescents are at risk of accepting false or biased information on important issues, including food. This has implications for how they construct the meaning of food security in the digital culture. Late adolescents (18–24 years old) are an important yet vulnerable group in this matter. According to (We Are Social, 2024), 98% of Indonesian adolescents are active internet users, with an average social media usage of more than 3 hours per day. They are digital natives (Prensky, 2001) who have grown up in a digital ecosystem. However, the intensity of media use does not always correspond to the quality of literacy.

In the context of food messages in the media, viral diet trends on TikTok or pseudoscience campaigns on Instagram can influence teenagers' consumption patterns without sufficient scientific basis (Cinelli, 2021). This emphasizes that information literacy is not just an individual skill but part of social practices greatly influenced by digital culture (Lloyd, 2021). Food issues are often shaped by popular narratives, hoaxes, or opinions constructed on social media, such as food prices, consumption patterns, and healthy lifestyles. For teenagers, such information is not always verified but rather received emotionally and interpreted according to their social identity. In fact, according to (Potter, 2013), adequate literacy requires skills in analysis, comparison, evaluation, and abstraction so that individuals can distinguish facts from opinions. This condition indicates a critical gap that shows how the post-truth era affects adolescents' ability to construct the meaning of food security.

Instead of developing critical understanding of food issues, adolescents tend to leave food management to their parents, while their role in interpreting food security remains limited. This also emphasizes that information literacy in the post-truth era is not just about access but also about the cognitive ability to process, filter, and give meaning to food information within a digital culture. The social reality of parents managing household food matters exacerbates this limitation. Thus, even though adolescents are widely exposed to digital information about food, they do not always have the authority or direct experience to critically construct the meaning of food security. The process of meaning construction, according to social constructivism theory (Berger, 1966), does not occur separately from social and cultural interactions. In the context of adolescents, the procedure involves the influence of peers, media discourse, and the digital culture they live in.

From a communication perspective, the construction of food security can be understood through several theories. Agenda-Setting Theory (McCombs, 1972) emphasizes the role of media in shaping public perception of significant issues.

Information processing theory explains how individuals select and interpret information, while social constructivism posits that reality is shaped by social interactions. The integration of these theories provides insight into the relationship between the construction of food security and the information literacy behaviours exhibited by individuals.

This study examines how late adolescents in Lampung construct their understanding of food security within the context of digital culture, focusing on their information literacy practices during the post-truth era. The research aims to contribute theoretically to the field of communication studies, particularly regarding information literacy and meaning construction. Additionally, it seeks to provide practical implications for digital literacy education and develop more inclusive food communication strategies for adolescents.

Furthermore, the purpose of this study is to analyse the construction of the meaning of food security and its relation to the level of information literacy among late adolescents in Lampung in the post-truth era. With this focus, the study is expected to provide empirical contributions to the development of information communication studies, as well as practical contributions to digital literacy strategies and food security policies in Indonesia.

RESEARCH METHOD

This study uses a mixed-methods approach. The overall purpose and central premise of mixed methods studies is that the use of quantitative and qualitative approaches in combination provides a more profound understanding of research problems and complex phenomena than either approach alone (Creswell, 2007). The choice of this method is based on the complexity of food security issues among late adolescents, which not only involves individual, social, and cultural aspects. The researchers selected the quantitative approach as the primary method to systematically measure participants' understanding of food security and their level of information literacy using descriptive and inferential statistics. This combination allows research to achieve a balance between breadth and depth, where quantitative methods serve as the main basis for answering research questions, while qualitative methods reinforce the interpretation and validity of the results.

The study population consisted of late adolescents aged 18 to 24 years in Lampung Province. Data collection was carried out using online questionnaires via the Google Forms platform. Although the instruments were prepared digitally, they were distributed offline by directly approaching respondents. This approach was selected to ensure equitable access, considering that some participants had limited access to digital technology. Respondents were chosen through random sampling, with a representation proportion of 6 to 10 percent from each district to ensure that the

distribution of respondents reflected the overall population. Ultimately, 100 late adolescents were successfully recruited as participants.

The data collection process spanned five weeks and involved two enumerators alongside the principal researcher. The researcher also conducted field observations and interviews with selected respondents. This approach was designed to enrich the quantitative data with qualitative insights, in line with the principles of mixed methods research. Quantitative data were subjected to descriptive analysis to provide a general overview of food security construction and information literacy levels among late adolescents in Lampung. Additionally, inferential analyses, including hypothesis testing, correlation tests, and simple linear regression, were performed to explore the relationship between food security and information literacy. Qualitative data were analysed using reduction, presentation, and conclusion-drawing techniques as outlined by (Miles, 1994).

RESULT AND DISCUSSION

The respondents in this study were late adolescents aged 18–24 residing in Lampung Province, with a relatively balanced gender distribution and an ethnic composition comprising 57% Lampung, 41% Javanese, and 2% other ethnicities. The majority of respondents held a high school education and were currently students.

The intensity of interpersonal communication regarding food security issues is moderate (mean = 2.3833), while the use of digital media as a food reference is very low (mean = 1.6331). This data suggests that interpersonal communication is more influential than digital media in shaping adolescents' perspectives on food. Conversations about food and consumption patterns primarily take place within family and peer groups, rather than through formal media or digital platforms. Adolescents tend to discuss food with family or friends. In contrast, social media is predominantly used for entertainment, not as a reliable source of food information. Consequently, food discourse is primarily shaped by interpersonal communication rather than digital media.

The results of the interviews indicate that several respondents access dietary information from digital media and tend to trust it. They share this information with their peers, either directly or through popular narratives, but do not present it as validated information. Some respondents recognize their vulnerability to misinformation, particularly information that lacks validation and can lead to hoaxes or unscientific claims about food. Consequently, the constructions that form are often partial. Respondents do not engage in critical evaluation, resulting in a shallow understanding of food security; for instance, they may assume that local food is superior or that eating vegetables is inherently healthy, without possessing the necessary conceptual knowledge. To seek validation for questionable information, they rely on external authorities, such as parents, peer groups, or influencers, rather than independently pursuing accurate information. This finding supports Lloyd's (2021)

assertion that information literacy is a social practice heavily influenced by cultural context.

According to the framework of social constructivism (Berger, 1966), everyday interactions create social meaning. Because food matters are primarily handled by parents, adolescents typically receive only secondary information. This situation contributes to an incomplete construction of meaning; adolescents perceive food merely as 'what is provided' and fail to internalize the concept of food security.

This condition differs from international studies. For example, (Ronto, 2016) found that adolescents in Australia who received nutrition education since high school had higher food literacy and demonstrated healthier consumption behaviours. This difference emphasizes that cultural context plays a significant role in shaping the construction of food-related meaning. In Lampung, the hierarchical family structure tends to make adolescents passive. Interview results with several respondents and parents (especially mothers) indicated that adolescents nowadays have patterns of participation in the family that differ compared to when their mothers were adolescents. During their teenage years, some mothers recalled their habit of helping their parents with household chores and cooking. They noted that since the rise of digital media, there have been changes in how teenagers spend their time. Particularly during COVID-19 and the shift to online learning, many respondents reported spending significantly more time on their phones than helping their parents. Some teenage girls mentioned that they believe they can learn about family food matters later through digital media. The data also confirms that they do not prioritize food security. In contrast, some teenage boys appear to be less concerned about this issue. This situation highlights a critical gap that reflects the cultural patterns in Lampung, where parents continue to hold primary authority over food-related matters.

The results of the descriptive analysis of the food security variable indicate that respondents' understanding of food security is at a moderate level (mean = 2.9867). This suggests a basic awareness of food issues, but it is not strong enough to be internalized in daily behaviour. The score reflects that the construction of the meaning of food security among adolescents in Lampung is still fragmented or partial. The meaning-making process appears to be at a superficial processing stage, characterized by the acceptance of information without in-depth analysis. Additionally, the score indicates that late adolescents recognize the importance of consuming nutritious food; however, their healthy consumption practices remain inconsistent.

Specifically, daily interactions largely shape late adolescents' responses in the construction of meaning regarding food security. The dominance of parents in food-related decision-making results in their construction of meaning being secondary and partial. From a communication perspective, this situation illustrates the weak agency of adolescents in managing food discourse. Hall's Encoding/Decoding Theory (Hall, 1980) elucidates this phenomenon, as media messages about food frequently encounter a

dominant-hegemonic perspective, devoid of negotiation or critical opposition. Meanwhile, the descriptive analysis of the information literacy variable reveals that the level of information literacy among late adolescents in Lampung is also moderate, with a mean score of 2.6957. Adolescents demonstrate a fair capability in accessing and understanding information, particularly in the abstraction dimension (mean = 3.0220), which indicates proficiency in summarizing message content. However, the analysis dimension (mean = 2.5689) and comparison dimension (mean = 2.5420) are identified as weak points, highlighting a significant gap in their evaluative abilities.

From a communication perspective, this condition highlights adolescents' challenges in navigating food discourse. In this context, Hall's Encoding/Decoding Theory (Hall, 1980) suggests that media messages about food are frequently interpreted through a dominant-hegemonic lens, lacking negotiation or critical engagement. The inferential statistical results reveal a significant positive correlation ($r=0.2873$) between food security and an R value of 0.0743. These findings emphasize that additional factors—such as family culture, peer influence, and media agendas—also have a profound impact on the food perceptions of late adolescents. Despite having extensive access to information, adolescents often lack the critical skills necessary for deep processing. Consequently, their understanding and practice of food security tend to be superficial and passive, which limits its contribution to sustainable food awareness in the post-truth era.

From a communication perspective, this condition illustrates the weakness of adolescents in managing food discourse. In relation to this, (Hall, 1980) explains that media messages about food are often received in the form of a dominant-hegemonic reading, without negotiation or critical opposition. Within the framework of (Potter, 2013) information literacy concept (2013), this gap occurs at the stage of information evaluation, which is when individuals are expected to be able to identify the quality, credibility, and relevance of sources. Evaluative weaknesses cause adolescents to be more likely to accept information quickly without considering the truth or reliability of the sources. These findings are in line with the study by (Head, 2020), which found that students in the algorithmic era have difficulty distinguishing credible information sources from popular sources. This condition indicates that the critical gap is not merely a local phenomenon but a global issue in the literacy of the younger generation. This finding also emphasizes that adolescents who are still unstable with their self-identity are more likely to seek meaning from the social networks and media they consume rather than from factual verification.

Specifically, it is associated with (McCombs, 1972) agenda-setting theory, which emphasizes that the media can influence the public agenda by highlighting certain issues so that the public perceives them as important. This classic study positions mass media as the dominant actor, setting issue priorities for the audience. However, the results of this study indicate a paradigm shift in the context of the digital era. Late

adolescents in Lampung do not use digital media as the primary source for shaping the agenda regarding food security issues. Instead, direct social interactions with family and community have a greater influence on how they understand and impart meaning to food. This confirms that in a digital environment, the agenda-setting process is no longer linear from the media to the audience but occurs more complexly, with multiple agenda setters, such as family, peers, and social media influencers.

Furthermore, adolescents' media consumption patterns, which are algorithm-based and involve personalized feeds (Pariser, 2011), show that the logic of filter bubbles and echo chambers now influences the process of spreading media messages. This means that digital media no longer has full control to uniformly set the agenda but is instead fragmented according to individual preferences and social networks.

In the context of information literacy, this fragmentation impacts the stages of selection, evaluation, and interpretation of information. During the selection stage, adolescents are more inclined to choose information that aligns with their interests or cognitive biases rather than assessing the credibility of the source. At the evaluation stage, their limited critical skills often hinder their ability to distinguish between facts and opinions, particularly when information is conveyed in an emotional manner. Consequently, the prevailing narratives within their social circles heavily influence the superficial interpretation process. This situation suggests that the algorithmizing of digital media undermines the role of information literacy as a critical filter while simultaneously reinforcing the confirmation bias characteristic of the post-truth era. Thus, instead of expanding their insights, digital media frequently constricts adolescents' information horizons through the repetition of uniform messages within their digital echo chambers.

In the context of information literacy, this situation creates a significant gap in the stages of evaluation and abstraction. Teenagers are more inclined to accept food narratives that are emotionally charged and resonate with their digital culture, rather than critically analyse more complex issues related to food security, such as local food availability, distribution, or sustainable production. The findings of this study indicate that discussions about food are primarily left to parents, which limits teenagers' roles in shaping their understanding of food.

The interconnection highlights that, in the post-truth era, the meaning of food security is no longer constructed in a linear fashion from media messages to individuals. Instead, it emerges from complex interactions among digital media, algorithms, and family social practices. This indicates that adolescents' information literacy should extend beyond merely acquiring technical skills for searching and using information; it must also encompass evaluative and reflective dimensions. This approach will enable them to develop a critical, contextual, and sustainable understanding of food. Additionally, there has been a notable shift in the function of agenda-setting. The media no longer solely dictate what the public perceives as important; rather, the agenda is

now shaped by a combination of media, algorithms, and social interactions. This perspective aligns with the views of (Meraz, 2011) and (Feezell, 2018) who argue that in the digital era, agenda-setting is fragmented and influenced by social filtering, rather than being a straightforward process as suggested by (McCombs, 1972)

Information Processing Theory (Lang, 2006; Lang. A, 2000) reveals adolescents' shortcomings in evaluating information. This theory posits that information processing involves three key stages: encoding (receiving messages), storage, and retrieval (recalling). Research indicates that adolescents often stop at the encoding stage, leading to a superficial understanding of information without thoroughly assessing the credibility or relevance of food-related content. This aligns with (Eveland, 2002) findings, which suggest that limited cognitive capacity and low motivation for critical thinking result in shallow information processing. In the post-truth era, this issue is further intensified, as emotional and widely appealing information is simpler to process than factual content, thereby trapping adolescents in superficial and biased narratives.

Thus, if linked to theory, this research indicates that the function of agenda-setting in the digital era is no longer linear but rather multipolar, influenced by media and algorithms as well as socio-cultural factors. From a psychological perspective, Information Processing Theory helps explain why adolescents fail to develop critical evaluation: limited cognitive capacity leads them to stop at surface-level understanding without conducting deeper analysis. The combination of these two perspectives indicates that late adolescents' information literacy in the post-truth era is not only determined by the distribution of media messages but also by cognitive limitations in processing information. Therefore, efforts to improve adolescents' information literacy need to be directed toward two aspects simultaneously: (1) strengthening individual critical capacity in evaluating information and (2) understanding the increasingly complex dynamics of agenda-setting due to socio-cultural influences and algorithmic effects.

Ultimately, this study aims to make a significant contribution to communication studies by emphasizing that information literacy is not merely an individual skill; rather, it is a social practice shaped by cultural context, family dynamics, and the social networks adolescents navigate. The processes involved in adolescent information literacy reveal a more complex framework thanks to the integration of agenda-setting, information processing, and social constructivism theories. The findings indicate that digital media does not consistently play a central role in shaping adolescents' perspectives on food issues; instead, the influence of family and the surrounding social environment proves to be more substantial. Additionally, from a cognitive perspective, many adolescents tend to remain at a superficial level of understanding due to limitations in their evaluative skills, which are important for acquiring critical literacy. Furthermore, the manner in which adolescents construct meaning around food security is primarily facilitated by direct social interactions within their families and communities,

rather than being predominantly influenced by information accessed through digital media.

CONCLUSION

The study found that late adolescents in Lampung show a moderate level of information literacy (mean = 2.6957), with a significant positive correlation ($r = 0.2873$; $R^2 = 0.0743$). This indicates a critical gap: while these late adolescents can access and understand basic information, they lack the necessary critical capacity to evaluate the credibility and relevance of information, particularly concerning food security issues. The study further suggests that the agenda-setting function in the digital era has become multipolar. Digital media no longer operates as the sole dominant actor; instead, algorithms fragment messages that adolescents frequently reinterpret through social interactions. In this context, family and peer groups play a more significant role in shaping adolescents' perspectives on food than traditional media. Consequently, late adolescents in the post-truth era find it challenging to develop a critical understanding of food security. The concept of food is often perceived as a "parental matter" or merely a matter of personal taste, rather than as a social responsibility linked to sustainability. Therefore, efforts to enhance information literacy should concentrate on two key areas: improving individuals' critical thinking skills and empowering late adolescents' social networks—comprising family, peers, and digital communities—to foster a more reflective and sustainable narrative around food security.

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