

## Reproducing Nutritional Knowledge in the Digital Ecosystem through Adolescent Counseling Practices

ABELLIA CLUARA SALZA MUSTIKA  
MUHAMMAD HAIKAL KAWEDAR

### ABSTRACT

In the digital society, nutritional knowledge is continuously reproduced through mediated interactions rather than transmitted linearly. This study examines how nutritional knowledge is reproduced in the digital ecosystem through adolescent counseling practices. Using a qualitative case study of two nutrition students participating in a public counseling competition themed “Healthy Eating as Fuel for Modern Adolescents,” the research explores how evidence-based dietary guidelines were translated into accessible messages for youth audiences. Despite limited preparation time and the absence of face-to-face rehearsals, coordination was conducted through digital communication, reflecting the mediated nature of contemporary knowledge production. The findings reveal three interconnected processes: academic reproduction of scientific references, communicative adaptation to adolescent discourse, and symbolic amplification through media exposure, including radio interviews. The study argues that adolescent counseling represents a socio-digital negotiation of meaning in which young nutrition educators actively reconstruct and legitimize healthy eating narratives within the digital ecosystem.

**Keywords:** *Knowledge reproduction; digital ecosystem; adolescent counselling; digital nutrition*

---

Abellia Cluara Salza Mustika is a student and researcher in the Department of Nutrition at the Health Polytechnic of the Ministry of Health Jakarta II, Indonesia. Email : abeliacsm@gmail.com. Muhammad Haikal Kawedar is a student and researcher in the Department of Nutrition at the Health Polytechnic of the Ministry of Health Jakarta II, Indonesia. Email : kawedarhaikal@gmail.com.

@2026 Departement Sociology, Faculty of Social and Political Sciences, Universitas Nasional. Website : <http://sosiologi.fisip.unas.ac.id/> Instagram : IJDSociety Email : IJDSociologyunas@civitas.unas.ac.id

**INTRODUCTION**

The development of digital technology has changed the way knowledge is produced, circulated, and legitimized in contemporary society. In the concept of the network society, Castells (2010) explains that information flows through interconnected digital networks, reshaping social structures, power relations, and daily practices. In this context, health and nutrition knowledge is no longer transmitted linearly through formal institutions such as schools or health workers, but is continuously reproduced in digitally mediated spaces of interaction.

Adolescents represent a highly active demographic within the digital ecosystem. Their perceptions and consumption practices are shaped not only by family and educational institutions, but also by social media, peer networks, and algorithmic exposure to food-related trends. From a sociological perspective, this phenomenon exemplifies Berger and Luckmann’s (1966) concept of the social construction of reality, wherein knowledge emerges through processes of interaction, habitualization, and institutionalization. As a result, norms regarding healthy eating patterns are constructed as social meanings negotiated within digital contexts, rather than being understood solely as biomedical facts. Additionally, Bourdieu (1977) contends that knowledge constitutes a form of symbolic capital reproduced through social practices.

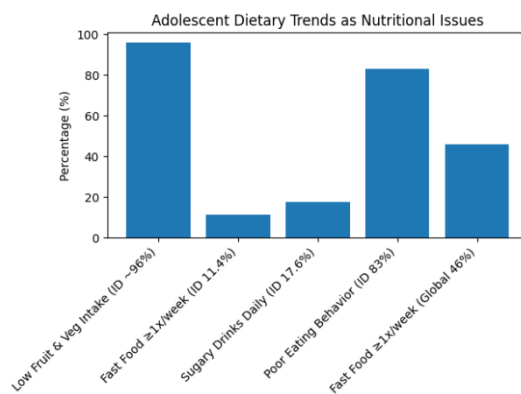


Table 1. Adolescent Dietary Trends as Nutritional Issues  
(Compiled from various sources by the author February 2026)

Within adolescent nutrition counseling, scientific guidelines on healthy eating are not only communicated but also translated and adapted to the specific characteristics of the target audience. These guidelines are legitimized through strategic communication and performative practices. This process demonstrates that knowledge reproduction requires adaptation, negotiation, and the reconstruction of meaning. The theory of mediatization explains how media shapes both the logic of communication and the construction of social legitimacy. Hjarvard (2013) argues that media not only transmits information but also determines how social actors achieve

visibility and authority. In digital society, outreach practices extend beyond face-to-face interactions and are amplified through broadcast media and digital platforms. Couldry and Hepp (2017) contend that contemporary social reality is increasingly constituted through mediation processes, making the reproduction of knowledge inseparable from the context of digital media.

This study examines adolescent nutrition education as a socio-digital practice, focusing on the reproduction of scientific knowledge through academic, communicative, and media channels. The analysis centers on how nutritional knowledge is disseminated within the digital ecosystem, using a case study of two nutrition students who participated in a counseling competition on healthy eating for adolescents. Due to limited preparation time and the absence of in-person training, coordination was managed through digital communication, illustrating the evolving processes of knowledge production in the digital era. The activity also received media and press coverage, including radio interviews following the competition. This exposure demonstrates that counseling practices extend beyond formal presentations and contribute to the dissemination of nutrition information in the public domain. Media involvement increases the reach of nutrition knowledge, reinforces the role of educators as agents of education, and positions healthy eating as a relevant topic within public discourse for adolescents. The reproduction of knowledge takes place not only in educational settings but also through media channels that influence public perceptions of nutritional literacy in the digital era. By examining adolescent nutrition education through the lens of knowledge reproduction and digital mediation, this study supports the advancement of digital sociology in nutrition and highlights the active role of young people in shaping and legitimizing healthy eating narratives within digital society.

## **METHOD**

This study employs a qualitative approach with a case study design, following the frameworks described by Creswell (2014) and Yin (2018). The research aims to analyze the reproduction of nutritional knowledge within the digital ecosystem, focusing on youth counseling practices in a nutritional education counseling competition. The competition was organized by alumni of the Academy of Nutrition and received media coverage. The subjects of the study were two D3 Nutrition students who participated in the competition, which carried the theme 'Healthy Eating as Fuel for Modern Teen Success.' Data were collected through document analysis, reflective interviews, and media documentation, in line with qualitative research techniques (Moleong, 2017; Sugiyono, 2019). The data were then analyzed using the interactive analysis model by Miles and Huberman (1994), which includes the stages of data reduction, data presentation, and conclusion drawing and verification. The findings were interpreted thematically with reference to the theory of social

construction of knowledge (Berger & Luckmann, 1966), symbolic reproduction (Bourdieu, 1977), and mediatization (Hjarvard, 2013). The results indicate that the reproduction of nutritional knowledge occurs in three main dimensions: academic reproduction through the transformation of scientific references into educational material, communicative reproduction through language adaptation and performativity, and media reproduction through amplification and symbolic legitimation in the digital public sphere.

## FINDINGS AND DISCUSSION

### Academic Reproduction of Nutritional Knowledge

The results indicate that the initial stage of nutritional knowledge reproduction occurs within the academic context, specifically through the conversion of scientific references into educational materials. In this process, credible sources, including adolescent health guidelines from both international and national institutions, were utilized and synthesized into materials under the theme of 'Healthy Eating as Fuel for Modern Adolescent Success.



Figure 1. Competition Material Teaching Aids

Through the teaching aids above, this process is not merely copying information, but involves selection, simplification, and rearrangement to suit the characteristics of adolescents.

Aspek	Temuan Data	Proses Reproduksi	Landasan Teoretis
Sumber Pengetahuan	Referensi ilmiah nasional dan internasional tentang gizi remaja	Seleksi dan penyederhanaan materi	Konstruksi sosial pengetahuan (Berger & Luckmann)
Transformasi Materi	Pedoman gizi diubah menjadi tema "Pola Makan Sehat sebagai Bahan Bakar Sukses Remaja Modern"	Kontekstualisasi sesuai karakter remaja	Institusionalisasi pengetahuan
Legitimasi Akademik	Penggunaan referensi kredibel	Pemberian otoritas simbolik pada penyuluh	Reproduksi simbolik (Bourdieu)
Output	Materi edukatif yang sistematis dan aplikatif	Pengetahuan menjadi narasi edukatif	Modal simbolik

Table 1. Academic Reproduction of Nutritional Knowledge

Table 1 illustrates that, consistent with the social construction of knowledge perspective as outlined by Berger and Luckmann (1966), knowledge attains significance when institutionalized through social practices rather than existing as an independent objective reality. The content related to complex carbohydrates, protein, vegetables and fruit, sugar restriction, and healthy living routines is presented as narratives that align with the context of contemporary adolescents. Accordingly, counseling serves as a platform for the re-institutionalization of nutritional knowledge within the digital generation. Furthermore, in accordance with Bourdieu's concept of symbolic reproduction (1977), the incorporation of scientific references establishes academic legitimacy and reinforces the symbolic authority of educators as knowledge agents. As noted by Sawyer et al. (2018), nutritional knowledge operates as a form of symbolic capital that is exchanged within the competitive and public education domains.

**Communicative Reproduction through Adaptation and Performance**

The second finding indicates that knowledge reproduction is evident not only at the content level but also at the level of communication. The extension workers encountered a situation in which the anticipated audience consisted of teenagers; however, the actual participants represented a broader age range. As a result, it was necessary to adapt language, intonation, gestures, and facial expressions to ensure that the message remained relevant to teenagers while maintaining credibility with the adult audience.

The limited duration of training and the absence of in-person meetings during the preparation phase indicate that coordination and material development were conducted through digital communication channels. This finding aligns with the characteristics of network society described by Castells (2010), in which social interaction and knowledge creation are facilitated by technology-mediated networks, as presented in Table 2.

Aspek	Temuan Data	Bentuk Adaptasi	Landasan Teoretis
Kondisi Audiens	Target remaja, audiens aktual lintas generasi	Pemilahan bahasa dan contoh konkret	Negosiasi makna sosial
Keterbatasan Persiapan	Tidak latihan tatap muka	Koordinasi melalui komunikasi digital	Network society (Castells)
Strategi Penyampaian	Intonasi, gestur, mimik wajah	Performativitas komunikasi	Habitus & praktik sosial (Bourdieu)
Dampak	Pesan tetap relevan dan kredibel	Adaptasi lintas generasi	Konstruksi relasional

Table 2. Communicative Reproduction in Extension Practices

Communication strategies that utilize simple language, concrete examples of common foods, and a focus on youth lifestyles demonstrate the process by which educational content is adapted to the target audience. Scientific information is restructured into a contextually relevant discourse. According to Bourdieu's framework (1977), this approach reflects the influence of the digital habitus of younger individuals on the presentation and organization of knowledge. As a result, the transmission of nutritional knowledge involves cognitive,

performative, and relational dimensions.

**Media Amplification and Knowledge Circulation**

The third dimension discovered was media reproduction. After winning an award in the competition, this outreach activity gained media attention through radio interviews and public coverage. This event expanded the outreach from the competition space to a wider public space. In the perspective of mediatization, Hjarvard (2013) emphasizes that the media is not merely a channel for distributing information, but a social institution that shapes legitimacy and visibility.

Media coverage transformed counseling practices into public narratives about the importance of nutrition literacy among adolescents. Knowledge that was previously situational became part of a broader social discourse.

Aspek	Temuan Data	Bentuk Adaptasi	Landasan Teoretis
Kondisi Audiens	Target remaja, audiens aktual lintas generasi	Pemilahan bahasa dan contoh konkret	Negosiasi makna sosial
Keterbatasan Persiapan	Tidak latihan tatap muka	Koordinasi melalui komunikasi digital	Network society (Castells)
Strategi Penyampaian	Intonasi, gestur, mimik wajah	Performativitas komunikasi	Habitus & praktik sosial (Bourdieu)
Dampak	Pesan tetap relevan dan kredibel	Adaptasi lintas generasi	Konstruksi relasional

Table 3. Media Reproduction and Knowledge Amplification

Couldry and Hepp (2017) also explain that social reality in contemporary society is increasingly shaped through mediation processes. In this context, media amplification reinforces the position of educators as representatives of the younger generation who care about health. Nutritional knowledge no longer stops at the educational space, but undergoes symbolic circulation in the digital ecosystem. These findings show that the reproduction of nutritional knowledge takes place in three interconnected layers: academic, communicative, and media. These three layers form a socio-digital dynamic that shows that nutritional counseling in the digital era is not merely a transfer of information, but a process of construction, negotiation, and legitimization of knowledge in digital society.

**CONCLUSION**

This study shows that the reproduction of nutritional knowledge in the digital ecosystem does not occur linearly as a process of information transfer, but rather as a socio-digital practice involving the transformation, negotiation, and legitimization of knowledge. Through a case study of youth outreach practices in nutritional education competitions, it was found that knowledge reproduction occurs in three interconnected dimensions, namely academic reproduction, communicative reproduction, and media reproduction. In the academic dimension, scientific guidelines on healthy eating patterns are transformed into contextual educational materials for digital youth. In the communicative dimension, this knowledge is negotiated through language strategies, performativity, and adaptation to cross-generational audiences in digitally-based coordination conditions. In the media

dimension, public coverage and interviews expand the circulation of knowledge while strengthening the symbolic legitimacy of extension workers as nutrition literacy agents in the digital society.

This finding confirms that the nutritional needs of adolescents in the digital age are not only related to physical nutrition, but also to strengthening digital nutrition literacy so that the younger generation is able to sort through health information amid the massive flow of digital content. In the context of global development, strengthening nutrition literacy and education contributes directly to the achievement of the United Nations Sustainable Development Goals (SDGs), particularly Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-Being), and Goal 4 (Quality Education). In addition, nutrition counseling practices that are adaptive to the digital ecosystem are also in line with the national development vision within the framework of the Government of the Republic of Indonesia's Asta Cita, particularly in strengthening superior human resources, improving the quality of public health, and inclusive and competitive digital transformation.

Therefore, similar counseling activities need to be carried out continuously to strengthen digital nutrition literacy, improve the communication capacity of nutrition students as agents of change, and expand collaboration between educational institutions, communities, and the media. With an integrated approach, nutrition counseling is not only a momentary educational activity but also develops as a structural strategy in building a healthy, critical, and adaptive generation in a digital society. With an integrated approach, nutrition education is not just a momentary educational activity, but has developed into a structural strategy for building a healthy, critical, and adaptive generation in a digital society. Ultimately, strengthening the reproduction of nutritional knowledge in the digital ecosystem is a long-term social investment that determines the quality of human resources, community health resilience, and sustainable development in the era of digital transformation.

### **ACKNOWLEDGEMENTS**

Our gratitude goes to the Indonesian Journal of Digital Society editors and reviewers team for the selection our article and publication in Volume 2 Number 1 of 2026. We hope there will be periodical publications in the Indonesian Journal of Digital and select our other writings.

**REFERENCES**

- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Anchor Books.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge University Press.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Hjarvard, S. (2013). *The mediatization of culture and society*. Routledge.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). SAGE Publications.
- Moleong, L. J. (2017). *Metodologi penelitian kualitatif* (Edisi revisi). PT Remaja Rosdakarya.
- Sugiyono. (2019). *Metode penelitian kualitatif, kuantitatif, dan R&D*. Alfabeta.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.
- World Health Organization. (2018). *Global school-based student health survey (GSHS)*. WHO.
- Kementerian Kesehatan Republik Indonesia. (2018). *Riset Kesehatan Dasar (Riskesdas) 2018*. Badan Penelitian dan Pengembangan Kesehatan.
- Kementerian Kesehatan Republik Indonesia. (2020). *Laporan nasional Riskesdas 2020*. Badan Penelitian dan Pengembangan Kesehatan.
- Sawyer, S. M., Azzopardi, P. S., Wickremarathne, D., & Patton, G. C. (2018). The age of adolescence. *The Lancet Child & Adolescent Health*, 2(3), 223–228. [https://doi.org/10.1016/S2352-4642\(18\)30022-1](https://doi.org/10.1016/S2352-4642(18)30022-1)
- Vaterlaus, J. M., Patten, E. V., Roche, C., & Young, J. A. (2015). #Gettinghealthy: The perceived influence of social media on young adult health behaviors. *Computers in Human Behavior*, 45, 151–157. <https://doi.org/10.1016/j.chb.2014.12.013>