

Concept Collapse of “Active Learning” in Japan: Mixed Analysis of Newspaper Articles

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Abstract: This study examines the concept of “active learning” in Japan. We explore the context in which useful and comprehensive concepts are replaced with subordinate concepts, called narrow interpretation. The concept of “active learning” collapsed in 2016 and replaced by its subordinate concepts in Japanese educational curriculum. This study used newspaper articles as data, logistic regression analysis to consider the top 35 words, and a qualitative classification process to analyze the discourse associated with the narrow interpretation of active learning. We observed that “Japan” and “oneself” were associated with the narrow interpretation of “active learning” and were analyzed contexts where they were used qualitatively. Moreover, we found that the contexts of overgeneralization and synecdoche (a kind of figure of speech) affected narrow interpretation. This conclusion suggests that further research should be conducted to investigate the trends and patterns beyond 2017, including the period of decline, and explore potential strategies to ensure the continued relevance of important concepts.

Keywords: *active learning; management fashion; empirical analysis; concept analysis*

1. Introduction

1.1 Fad of Concepts

The central concepts of shape management and policy are filled with new fads. Active learning, the subject of this study, is one such example. While these emerging concepts seem to be successful in attracting people’s attention, they often lead to confusion in the field (Ministry of Education, Culture, Sports, Science and Technology 2015). Active learning has alienated from its original meaning, placing the burden on the field that something new must be executed. Although active learning intends to promote knowledge acquisition through learning that involves the externalization of cognitive processes, there has been a situation wherein focus has only been on the development and utilization of novel teaching methods (Hara 2018). Thus, the interest of this study lies in the collapse of the concept, where efforts to adopt new concepts contribute to generating interest but do not fulfill their original purpose.

It is well-known that fads for new management concepts follow a certain trajectory. Prior studies find that management concept fads are characterized by a life

cycle with a long incubation period followed by a wave-like, often asymmetric, and fleeting popularity curve as shown in Figure 1 (Abrahamson 1996; Abrahamson and Fairchild 1999; Aksom 2022) . They reveal that certain types of discourse exist at each stage of the fad (Oesterreich, Schuir, and Teuteberg 2020). During the upswing phase of a fad, discourses indicate problems with the current situation, offer solutions to these problems, and introduce success stories (Denrell and Kovács 2020). However, it is argued that critical and rational discourse increases during the downswing phase, which is the focus of this study. Although the discourse of the upswing and downswing phases has been discussed separately (e.g. Berg and Madson 2020; Madsen 2020a), this study proposes the hypothesis that the factors that lead to the downswing phase may be latent in the discourse of the upswing phase. To understand this proposal, we refer to Hirsch and Levin (1999), who theorize the antagonism between fads and decline in management concepts. They argue that the struggle between factions that consider a broad perspective and support an overarching concept that preserves the validity of the field and those that seek to reinforce its validity in a particular context forms the life cycle of a concept (fad). Their life cycle model consists of four stages of development: (1) new excitement; (2) validity challenges; (3) tidy-up category; and (4) overcoming challenges, permanent problems, and concept collapse. This model has been elaborated by numerous researchers. Giroux (2005) presented a strategy for generating new excitement by using concepts in a deliberately ambiguous manner. Addressing the ‘validity challenge’ phase, Aksom (2022) discussed integrating management fashion theory with new institutionalism, explaining the transient nature of popular management ideas and practices and how institutional theory accounts for their stabilization, persistence, and further institutionalization. Stegar et al. (2018) identified a mechanism in the standardization process during the ‘tidy-up’ phase. In the early stages of a fad, the renewed excitement phase, the inclusiveness of the concept is endorsed, and there is a widespread push to spread it to a wider field (Madsen 2020b; Piazza and Abrahamson 2020). This allows everyone to move toward a common goal and compete in far-sighted discussions (Wood and McKinley 2020). However, the validity of the concept has diminished, because it results in free interpretation in many contexts (Nielsen, Wæraas and Dahl 2020). This creates validity challenges, as cases arise that do not rigorously use the concept. Efforts have been made to standardize the definition and measurement of concepts, and methodologies have been developed for this purpose (Makowski 2021). However, in many cases, such as in marketing and accounting, this attempt has not been successful (Bergkvist and Eisend 2021 ; Madsen 2019). The antagonism between comprehensiveness and validity results in three typologies: making the concept

consistent (overcoming challenges), allowing disagreement about its definition (permanent problems), and seeking its demise (concept collapse).

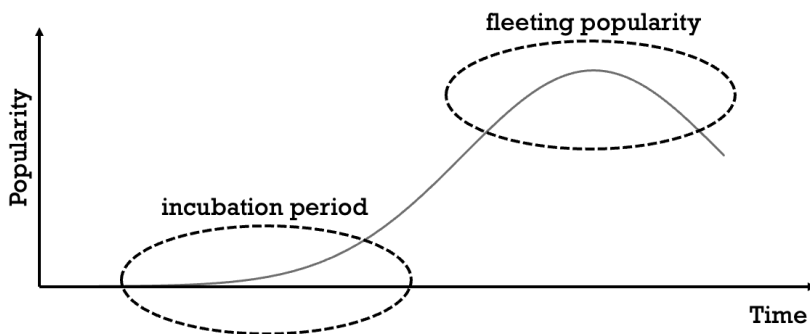


Figure 1 Trajectory of fads of concepts

In the life cycle of a concept, a transition occurs wherein a subordinate concept is often used instead of the original overarching concept. For example, Wood and McKinley (2020) analyze a situation in which the concept of entrepreneurial opportunity requires validation because of its comprehensiveness. They indicate that several subconcepts have been proposed and are being replaced by them; however, in the process, ends and means are being swapped, making the field myopic, fragmented, and ambiguous again. For this study’s purpose, we refer to this movement toward substitution of subconcepts as “narrow interpretation,” operationally defined as the formation of a discourse that focuses on few components of an overarching concept and ignores the other elements.

We will reveal that this narrow interpretation can be found not only in factions that seek to increase validity but also in factions that seek to make the concept fashionable. This is because, in some cases, only subordinate elements are reported to prioritize word-count limitations and clarity in the media (Madsen and Slåtten 2019; Galvin 2021; Khotimah 2022). We argue that this narrow interpretation can be observed even during the upswing of a fad and show that this phenomenon can lead to the downswing of a fad. The mechanism by which a fashion trend turns from an upward phase to a downward phase has not been fully clarified (Madeson 2020b), and this study contributes to research in this field by highlighting the problem of narrow interpretation as a factor leading to a downward phase that is latent in an upward phase. As a case study of such a phenomenon, this study pursues the issue of the media fad and systematic adoption of the concept of “active learning” in Japan.

1.2 "Active Learning" Misunderstood in Japan

The term "active learning," the subject of this study, was imported from the United States (U.S.) as a methodology for class reform in higher education (especially universities) in Japan (Yamauchi, 2018). Mizokami's academic definition of the term is as follows:

All learning with any type of activity in the sense of overcoming the (passive) learning of listening to one-way knowledge-imparting lectures. Active learning involves activities such as writing, speaking, and presenting, and the externalization of the cognitive processes that occur there (Mizokami 2014, 7).

Mizokami operationally defines "listening" as a relatively passive act (*ibid.*, 8-9), and then states that all other learning methods "involving externalization of cognitive processes" fall under active learning.

Mizokami cites several previous American studies and case studies in his book to explain active learning and deliberately uses the word "active learning" without translating it into Japanese. The reason is as follows:

This is because I would like to create a novelty. There are too many new things to redefine and advocate using the familiar term "Noudou Teki Gakushu [能動的学習]" which has been widely used in the past. Rather, we would like to renew the term "active learning" in katakana [just rewrite alphabets into Japanese letters], and advocate its definition and significance as a new concept (*ibid.*, 6).

In the English-speaking world, the term "active learning" emerged in articles as early as 1987 (Chickering and Gamson 1987). Recent years, the definition of active learning by Bonwell and Eison (1991) is frequently used. Their definition is similar to that of Mizokami; however, they assert that the term "active learning" is already being overused in 1991 without a common definition and list the following five common characteristics of "active learning" (Bonwell and Eison 1991, iv):

- Students are involved in more than listening.
- Less emphasis is placed on transmitting information and more on developing students' skills.
- Students are involved in high-order thinking (analysis, synthesis, and evaluation).
- Students are engaged in activities (e.g., reading, discussing, writing).

- Greater emphasis is placed on students’ exploration of their attitudes and values. (ibid., 2)

Considering the above, active learning is sometimes understood as skill acquisition rather than knowledge acquisition. However, it is a clear misunderstanding to exclude knowledge acquisition from active learning. Mizokami (2014, 10), for example, criticizes “active learning practices that do not focus on how cognitive functions are intertwined with knowledge.” Bonwell and Eison (1991) refer to previous studies that examine how much students acquire knowledge to evident the effectiveness of “active learning.” Furthermore, they state that it is necessary for students to memorize and understand relevant knowledge as a prerequisite to engage in “high-order thinking.” Some studies suggest that the more the knowledge is memorized through active cognitive processes, the more likely it is to be sublimated into high-order thinking, such as understanding, applying, analyzing, and evaluating that knowledge, which is believed to be related to historical trends of thought in American higher education (Anderson and Krathwohl 2001; Ishii 2015; Hara 2018). Therefore, “active learning” should be understood as a learning method that can be used in all learning processes, from helping students acquire knowledge to using that knowledge to think at a higher level. Active learning includes not only presentations, discussions, and research but also simple quizzes and comment papers during lectures, exercises to consolidate knowledge, report writing, recitation papers, and tests.

However, in Japan, particularly in the context of primary and secondary education, the interpretation of active learning has not been conveyed accurately. For example, at the first meeting of the Curriculum Subcommittee’s Special Committee on General Provisions and Evaluation in 2015, Commissioner Watase stated that “the

Table 1: Classification of active learning-type classes (Mizokami 2014, 71, partially omitted)

	<i>Type 0</i>	<i>Type 1</i>	<i>Type 2</i>	<i>Type 3</i>
<i>Form of learning</i>	Passive	Active	Active	Active
<i>Who leads Students Learning</i>	Teacher leads students	Teacher leads students, lecture based	Teacher leads students, lecture based	Students lead their own learning
<i>Strategy as active learning practices against traditional lectures</i>	—	Low	Medium-high	High

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<p><i>Techniques and Outlines</i></p>	<ul style="list-style-type: none"> ● How to speak (volume and speed of voice) ● How to write on blackboard ● How to show slides ● Using the real things or models 	<ul style="list-style-type: none"> ● Comment Sheets/minutes Papers ● Essay writing/short tests ● Homework (preparation, exercises, e-learning, etc.) ● Clicker 	<ul style="list-style-type: none"> ● Discussion ● Presentation ● Experiential learning 	<ul style="list-style-type: none"> ● Coordinate learning ● Survey learning ● Debate ● Learning through discussion ● Peer instruction ● PBL: Problem-based learning ● PBL: Project-based learning ● TBL: Team-based learning ● IBL: Inquiry-based learning ● Socrates method ● Case-based teaching/instruction ● Discovery learning ● Peer learning ● FBL: Field-based learning ● Accelerated learning ● BLP: Business leadership program
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term “active learning” has begun to deviate from original meaning,” and that “the general provisions [of the periodic curriculum guidelines] should be described so that the image does not become fixed,” and that “we need to write description that make individual students learn actively” (Ministry of Education, Culture, Sports, Science and Technology 2015). Therefore, the term “active learning” was removed from political discussions and was replaced by the Japanese term “shutaiteki, taiwateki de fukai manabi” [主体的・対話的で深い学び], which means “proactive, interactive, and deep learning,” evidencing that the concept of “active learning” has collapsed. Applying them to the theory of Hirsch and Levin (1999), the concept of “active learning” in Japan has moved from phase (3), tidy-up category to phase (4), collapse of concept, as early as 2015.

The term “proactive, interactive, and deep learning” is not an accurate translation of “active learning” and has resulted in a narrow interpretation. The English word “active” has to be translated as “noudouteki” [能動的], and active learning refers to all activities other than “listening,” as mentioned above. However, the word is sometimes translated as “shutaiteki” [主体的], which should be translated as “subjective” in English. In this case, “active” activities but not subjective such as practice problems, recitation papers, and testing are excluded. Mizokami, for example, classifies active learning-type classes as shown in table 1, but only Type 3 falls into the category of active learning and “proactive, interactive, and deep learning,” which is a narrow interpretation.

To adopt the concept “proactive, interactive, and deep learning” into Japanese education systematically, the Ministry of Education, Culture, Sports, Science and Technology revised Japanese National Curriculum Standards in 2017. At the same time, the law concerning teacher training was also revised and teaching methods with “proactive, interactive, and deep learning” became emphasized. Therefore, in the recent revision of the Japanese National Curriculum Standards, the concept of “active learning” has been replaced by subordinate concepts.

2. Research Questions and Hypotheses

The questions persist regarding the time of the emergence of the narrow interpretation of active learning and the reason for the occurrence of this situation. We conducted a quantitative analysis using newspaper articles from before 2016, when the National Curriculum Standards were revised and the concept of “active learning” had collapsed. Therefore, we present the following two research questions (RQs):

- RQ1: When did the narrow interpretation of active learning arise?
- RQ2: What discourse characteristics are associated with a narrow interpretation of active learning?

We explored and clarified these two RQs in this study using both quantitative and qualitative methods.

3. Methods

(Analysis 1) We collected articles for 9 years from 2008 to 2016, using “active learning” as search terms for newspaper articles in the article database of Yomiuri Shimbun, a leading Japanese newspaper. As we assumed that the way active learning was discussed

in the public sphere influenced the interpretation of this concept, newspapers, rather than administrative proceedings, were used in the analysis. In 2008, “active learning” was featured in the Yomiuri Shimbun. Furthermore, the analysis covered the period up to the year before 2017, when the term “active learning” was removed during the revision of the Courses of Study. For these 149 articles, we qualitatively categorized the definition of “active learning.” Then, we compared the number of articles per category.

(Analysis 2) We analyzed nouns associated with articles on “active learning. First, as we aimed only at major nouns, we calculated their frequency of occurrence and extracted 34 nouns with more than three standard deviations from the mean frequency of occurrence (the frequency of occurrence was 35). The number of times these nouns appeared in each article was considered as an explanatory variable. The dependent variable was used to determine the appropriateness of the definition of “active learning” in each study. A logistic regression model was constructed to analyze the relationship between each noun and adequacy of the definition. The significance level was set at 0.05.

(Analysis 3) We extracted nouns that had a negative relationship with the appropriate definition in newspaper articles, based on the results of the logistic regression analysis conducted in quantitative Analysis 2. We then qualitatively analyzed how these extracted nouns were used in newspaper articles with inappropriate definitions and identified contexts where narrow interpretations were likely to appear through this analysis.

3. Results

(Analysis 1) A qualitative category of definitions to “active learning” in newspaper articles yielded six categories: appropriate definition, narrow interpretation (form of learning), narrow interpretation (voluntary and proactive), narrow interpretation (exclusion of knowledge acquisition), confused with problem-solving learning, and other/ misuse. In some cases, an article belonged to more than one category. The following presents each category with specific examples. The examples are translations of actual descriptions found in newspaper articles.

- (1) Appropriate definition (23 articles): Definitions by Mizokami (2014) or similar. Not applicable to (2)-(6)
e.g., The method in which students actively confront problems or engage in self-directed learning is called 'active learning.' It is said to be more memorable than classes where teachers simply lecture. (2 February 2016)

- (2) Narrow interpretation (Type A: form of learning) (58 articles): The interpretation of active learning is limited to a specific type of learning, such as "problem-solving learning" or "debate only" as active learning. e.g., The university is planning to create an environment for incorporating 'active learning,' where students utilize Information and Communication Technology (ICT) for presentations and discussions in their classes. (21 September 2013)
- (3) Narrow interpretation (Type B: spontaneous and independent) (45 articles): It is written as if being "spontaneous" and "proactive" is an essential element of active learning. The English word "active" is translated into Japanese that means "proactive" or "spontaneous." e.g., It is challenging for teachers to gauge the feelings of dozens of students, but training to do so is crucial. As active learning, where children learn subjectively, is introduced, this skill becomes even more important. (26 December 2014)
- (4) Narrow interpretation (Type C: exclusion of knowledge acquisition) (16 articles): "Knowledge acquisition" is not considered as an element of active learning, as in "Knowledge acquisition" is necessary as a prerequisite for active learning.
e.g., That school incorporates active learning, such as in classes like 'Hometown Creation Studies' focused on post-disaster recovery, where knowledge learned is applied in real-world contexts. (9 April 2015)
- (5) Misuse (20 articles): The term "active learning" is used in a confusing way or misuse.

e.g., One form of 'active learning,' where children cooperate to learn, is the learning method called 'Learning Communities.' This approach, practiced nationwide for the past 20 years, has shown success in school reforms, including student guidance and counseling." (19 March 2015)

Figure 2 shows transition by category. Overall, the number of articles increased in 2012 and peaked in 2016. The most significant increase was in narrow interpretation (Type A: Form of learning), which reached 30 articles in 2016. The next largest increase was in narrow interpretations (Type B: spontaneous and proactive), with 19 articles. However, the number of appropriately defined articles remained unchanged at 6 after 2014.

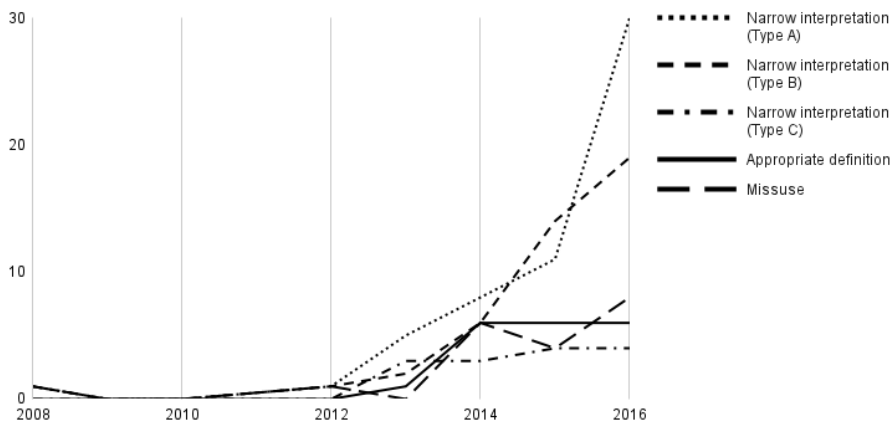


Figure 2. Transition by category

(Analysis 2) We discuss the results of the logistic regression analysis (Table 2), which shows that a meaningful model can be constructed from the pseudo-R-square (0.5858) and LLR p-values (0.0006611). Regarding the significant coefficients, the four nouns that were positively related to articles with appropriate definitions were “teacher,” “university,” “school,” and “Ministry of Education.” In contrast, the nouns that were negatively related were “Japan” and “oneself.”

Table 2: Summary of logistic regression model

	<i>coefficient</i>	<i>std err</i>	<i>z</i>	$P> z $	[0.025	0.975]
<i>const</i>	-4.33	1.19	-3.65	0.00	-6.66	-2.01
教師(<i>teacher</i>)	2.02	1.00	2.03	0.04	0.07	3.98
生徒(<i>student</i>)	-0.05	0.62	-0.08	0.94	-1.27	1.17
大学(<i>university</i>)	1.73	0.63	2.77	0.01	0.51	2.96
研究(<i>research</i>)	-1.91	2.07	-0.92	0.36	-5.98	2.15
小学校(<i>elementary school</i>)	-0.77	0.89	-0.86	0.39	-2.52	0.98
課題(<i>issue</i>)	1.15	0.87	1.32	0.19	-0.55	2.86
討論(<i>discussion</i>)	0.90	1.40	0.64	0.52	-1.85	3.65
時間(<i>time</i>)	-0.71	1.29	-0.55	0.58	-3.25	1.82
自分(<i>oneself</i>)	-1.72	0.83	-2.08	0.04	-3.35	-0.10
子供たち(<i>children</i>)	-0.17	1.02	-0.17	0.87	-2.17	1.83
知識(<i>knowledge</i>)	-2.21	1.66	-1.33	0.18	-5.45	1.04
学習(<i>learning</i>)	1.56	0.95	1.64	0.10	-0.31	3.43
教員(<i>teacher</i>)	-0.90	0.57	-1.58	0.12	-2.02	0.22

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今回(<i>this time</i>)	-2.87	2.34	-1.23	0.22	-7.45	1.71
英語(<i>English</i>)	0.54	0.33	1.66	0.10	-0.10	1.18
テーマ(<i>theme</i>)	0.01	1.42	0.01	1.00	-2.77	2.79
文部科学省(<i>the Ministry of Education</i>)	-1.54	1.41	-1.09	0.27	-4.30	1.22
県(<i>prefecture</i>)	-0.13	1.38	-0.09	0.93	-2.83	2.57
社会(<i>society</i>)	0.12	0.85	0.14	0.89	-1.55	1.79
教育(<i>education</i>)	0.54	0.66	0.81	0.42	-0.77	1.84
日本(<i>Japan</i>)	-2.44	1.04	-2.35	0.02	-4.48	-0.40
学校(<i>school</i>)	1.58	0.72	2.19	0.03	0.17	2.98
全国(<i>the whole country</i>)	-3.56	2.72	-1.31	0.19	-8.88	1.77
教授(<i>professor</i>)	-0.93	1.52	-0.61	0.54	-3.91	2.04
地域(<i>district</i>)	-0.03	0.77	-0.04	0.97	-1.54	1.48
生徒たち(<i>students</i>)	0.43	0.87	0.49	0.62	-1.28	2.14
子ども(<i>child</i>)	0.13	0.83	0.16	0.87	-1.49	1.75
子どもたち(<i>children</i>)	0.46	0.75	0.62	0.54	-1.01	1.94
新聞(<i>newspaper</i>)	-6.49	9.49	-0.68	0.49	-25.09	12.11
問題(<i>problem</i>)	0.11	0.78	0.14	0.89	-1.43	1.64
高校(<i>high school</i>)	-0.28	0.43	-0.65	0.51	-1.11	0.56
中学校(<i>junior high school</i>)	-0.11	1.16	-0.09	0.93	-2.38	2.17
文科省(<i>abbr. of the Ministry of Education</i>)	1.48	0.60	2.45	0.01	0.29	2.66
思考力(<i>capability of thinking</i>)	2.14	1.37	1.56	0.12	-0.55	4.83

(Analysis 3) The results of the logistic regression analysis revealed that the nouns that were negatively associated with articles with appropriate definitions were “Japan” and “oneself.” Therefore, we analyzed how these two nouns were used in articles with inappropriate definitions.

First, we showed the results of the analysis of articles containing “Japan.” The number of articles containing “Japan” was 57. For each of these articles, we categorized the contexts in which “Japan” was used and identified six categories: “global/international comparison,” “overgeneralization,” “political issue,” “organization name,” “study topic,” and “others.”

Table 3 Categories of articles containing “Japan” and appropriateness of definition

	<i>Appropriate</i>	<i>Narrow interpretation Type A</i>	<i>Narrow interpretation Type B</i>	<i>Narrow interpretation Type C</i>	<i>Misuse</i>
<i>Global/international comparison</i>	1	12	4	2	3
<i>Overgeneralization</i>	0	2	5	0	1
<i>Political issue</i>	0	0	2	0	0
<i>Organization name</i>	0	2	4	1	2
<i>Study topic</i>	0	4	3	3	3
<i>Others</i>	0	1	2	1	5

Table 3 shows the types of articles containing “Japan” and the appropriate and inappropriate (narrow interpretation) definitions. Some articles were assigned to more than one of the three inappropriate categories. Therefore, the number of articles including “Japan” (57) differs from the total number of articles in the table. In descending order of number of articles, there were 21 articles for “global/international comparison,” 13 for “study topic,” 9 for “organization name,” 9 for “others,” 8 for “overgeneralization,” and 2 for “political issues.” The following presents each category with specific examples. The examples are translations of actual descriptions found in newspaper articles

- (1) Global/international comparison: Describing the significance of active learning in terms of comparison with education in other countries (mainly the U.S.) and the need to develop global human resources. e.g., Shunya Shiga, Vice Chairman of Nissan Motor Co., Ltd., pointed out the current shortage of Japanese business professionals who can compete on an equal footing with foreigners in his keynote speech. He stated, "To nurture talent that can thrive globally, it is essential for high school students to decide on their future goals and choose a suitable university to realize those goals." Harushige Kusumi, President of Kansai University, who delivered a special lecture, emphasized the importance of contemplating problems without clear answers at the university level. He

introduced the university's initiatives, such as promoting active learning for proactive student engagement and establishing research facilities for collaboration between industry, government, and academia. (29 June 2016)

- (2) Overgeneralization: Generalizing facts or situations that may only apply to a part of something as if they apply to the entirety of "Japan." e.g., Mr. Suzuki emphasized that one of the key elements in the ongoing reforms by the Ministry of Education, Culture, Sports, Science and Technology is "active learning" (subjective, collaborative learning where students solve problems through discussions). He reported, "The biggest issue with Japanese high school students is their extreme passivity. To address this, we are considering changes, including the format of university entrance exams, to instill a sense of awareness and motivation for students to autonomously navigate their own lives. (14 October 2015)
- (3) Political issues: Referring to active learning in the context of educational policies or reforms.
e.g., The Ministry of Education is particularly strong in its resistance to the Ministry of Finance's first attempt to reduce the additional teaching staff. Out of the total quota of approximately 693,500 educators for this fiscal year, there are about 63,200 additional teaching staff, accounting for just under 10%. The Ministry of Education intends to increase the number of additional teaching staff in the future. One reason for this is the full-scale introduction of "active learning," where children learn subjectively. (23 May 2015)
- (4) Organization name: This introduces the approaches of institutions or organizations that do not necessarily have theoretical or practical expertise in active learning.
e.g., Shokei High School in Kumamoto City was selected as a designated school for Newspaper in Education (NIE) practices in April 2014. In November 2015, an open seminar organized by the Kumamoto Prefecture NIE Promotion Council was scheduled. The students, particularly those in the third-year preschool education class (33 students), expressed a strong interest in the "waiting list for childcare," as featured in a local newspaper article. As a result, this topic was chosen as the central theme. In preparation for the seminar, the students subjectively engaged in an "active learning" style class, where they discussed and explored issues and solutions subjectively. (25 August 2016)

- (5) Study topic: refers to a topic addressed in the daily teaching practices of active learning.

e.g., In late February, a team of four students from Chuo University (located in Hachioji City, Tokyo) conducted interviews at the "Meiji University Peace Education Noborito Research Institute Museum," situated on the site of a facility for research on the Imperial Japanese Army (in Tama Ward, Kawasaki City). They interviewed the museum director. ... An interview is the method of active learning, where students autonomously engage in tackling challenges on their own for effective problem-solving. This approach contributes to the development of comprehensive humanity. (6 March 2015)

- (6) Other: articles that did not apply to the above five categories.

e.g., In Akita Prefecture, they have introduced "active learning," where children progress through lessons while engaging in discussions. While the primary focus is on enhancing the proficiency of learning, the personnel analyzing the situation state that "creating an environment where students can subjectively participate in lessons has also contributed to addressing school refusal." (8 August 2015)

Next, we show the results of the analysis of articles that included "oneself." There were 21 articles that included "oneself." All these articles emphasized specific learning styles and learner autonomy, such as "thinking by oneself" and "experiencing by oneself." Here, "doing something by oneself," a subordinate concept of "active learning," was used as if it were active learning itself. Specifically, these articles define or describe active learning with synecdoche using the phrase "do something by oneself." Synecdoche is a rhetorical device that expresses a high-level concept using a low-level concept. Such expressions involve the representation of a high-level concept through a subordinate concept and the representation of a subordinate concept through a high-level concept (Komatsubara 2018). The expression of active learning as "doing something by oneself" falls into the former category. Examples of this type of synecdoche include the use of "hands" to refer to workers or the workforce, and the use of "bread" to refer to food or living expenses. In this case, "doing something by oneself" was the subordinate concept and its high-level concept was active learning. Table 4 shows the classification of articles that include the word "oneself." As some articles are classified into multiple categories among the three inappropriate categories, the total number of articles in the table is different from the number of articles including "oneself" (21 articles).

Table 4 Types of articles containing “oneself” and appropriateness of definition

	<i>Appropriate</i>	<i>Narrow interpretation Type A</i>	<i>Narrow interpretation Type B</i>	<i>Narrow interpretation Type C</i>	<i>Misuse</i>
<i># of Articles</i>	3	9	7	5	4

Discussion and Conclusion

5.1 Interpretation of Results

Analysis 1 revealed that the tendency to use an inappropriate definition of “active learning” accelerated since 2013, while the number of articles using an appropriate definition remained unchanged. Although previous studies indicated that popular concepts tend to become umbrella terms as they diffuse, this concept became narrowly interpreted. This is the exact opposite of the findings of previous studies, and we propose that the collapse of the concept occurs because of a narrow interpretation.

Analysis 2 revealed the relationship between specific nouns and the adequacy of their definitions. We observed that appropriate definitions were more likely to be used in articles associated with school education, such as “teacher,” “university,” and “Ministry of Education.” In contrast, articles containing the words “Japan” and “oneself” were more likely to be used in inappropriate articles. These two analyses reveal that the expanded use of the term “active learning,” which led to its collapse in 2016, is related to a narrow interpretation of the concept associated with its use in a context different from that of higher education, where the term originated.

Analysis 3 revealed that the contexts associated with the narrow interpretation linked to the collapse of the concept of “active learning” were those involving the words “Japan” and “oneself.” As for the contexts containing the word “Japan,” five categories were characterized (global/international comparison, study topic, organization name, overgeneralization, and political issue). The context with the highest number of occurrences of narrow interpretation was the “global / international comparison” context. This context, explicitly or implicitly, tends to discuss the U.S. and other foreign countries in contrast to “Japan,” and has similar characteristics to the “overgeneralization” context. These contexts are introduced because the word “Japan” is used primarily to bring a global perspective and to talk about the phenomenon by overgeneralizing a specific situation. In the “global / international comparison,” there seems to be an intention to compare Japan with

other countries. Moreover, as there is a tendency to focus on specific attributes such as “Japanese students are passive,” the definition of “active learning” also tends to be influenced by those specific attributes. The “overgeneralization” context, that is, the context that generalizes facts and situations that may only apply to a small part of social phenomena seen throughout “Japan,” is a group of articles that attempts to discuss social phenomena from a broader perspective. When attempting to discuss a broader context than the original context of “education,” it is possible to deviate from the original context. These results suggest that articles written with this intention often use inappropriate definitions.

The contexts of “organization name” and “political issue” are also those that are far deviated from the original context. The “organization name” context introduces the efforts of institutions and organizations that do not necessarily have theoretical or practical expertise in active learning, and it is not surprising that the term “active learning” used in this context tends to be inappropriately defined. The same applies to the context of “political issues,” which is also a context that is distant from the original educational theory and practice, as well as the context of “organization name.”

The context of “study topic” refers to setting “something of Japan” as a learning theme in classroom practices of active learning. This context shows similarities with “global/international comparisons” or “overgeneralization” that compare Japan with other countries. In other words, there are discussions that focus on specific learning methods such as “subjective learning” or “problem-solving learning,” dealing with study topics such as “Japanese history,” “Imperial Japanese Army,” and “Japanese tea.”

Another context related to the narrow interpretation associated with the collapse of the concept of active learning is “oneself.” The use of figurative expressions is a significant feature of this context. For instance, the activity of “doing something by oneself” is a subelement of active learning but defining or describing it as active learning can be considered a synecdochical expression. As previously mentioned, active learning can be adopted in all learning processes, from acquiring knowledge to performing high-order thinking using that knowledge. This learning method includes not only presentations, discussions, and research learning but also quizzes, comment papers, problem-solving exercises, report writing, memorization, and tests during lectures or classes. However, when restricted to the learning method of the “doing something by oneself,” quizzes, comment papers, and problem-solving exercises presented by instructors during lectures are excluded. In this way, the context that includes “oneself” also exhibits the characteristics of a narrow interpretation that is different from a proper definition.

5.2 Contributions to Prior Research

This research indicates that the narrow interpretation of “active learning” started before the decision regarding the deletion of this concept in the curriculum in the new National Curriculum Standard in the Central Council for Education. Furthermore, most newspaper articles we examined mentioning “active learning” did not refer to the definition or research done by professional scholars, and just introduced teachers’ or educators’ own ideas.

In Japan, specialists often use untranslated loanwords to maintain their original meaning when there are established Japanese words with different nuances (Torikai 2007; Otani 2007). However, in fields such as education, where individual experience is generally more emphasized than theoretical knowledge and scientific evidence is sometimes ignored in policymaking, imported words are used without translation to show their novelty without considering the related misunderstandings. Our study provides an example of such a situation.

The biggest misunderstanding concerning active learning—the notion that active learning should be “subjective” learning and exclude acquisition of knowledge—may also have emerged in this process. To prevent this, newspapers should place articles with citations from reviewed academic articles, especially regarding the definition of important words.

In previous studies on management fashion, replacement with subcomponents (i.e., narrow interpretation) was considered a discourse characteristic of declining fashion (Wood and McKinley 2020). However, our findings revealed that a narrow interpretation existed since the beginning of the fad. This suggested that rather than characterizing the decline of a fad, a narrow interpretation was present during the fad and was responsible for its cessation. In this study, a narrow interpretation occurred as a simplification of a phenomenon that often contains errors. This may be because the subject of this study was newspapers, a medium with a limited number of characters, and in the process of such information truncation, a narrow interpretation was conducted in a way that undermined validity. Thus, this study’s unique finding is that the interpretation of a concept by reduction, which focuses only on its subcomponents, has occurred since the initial stages of its popularity (not only during the decline of a trend), and that such a movement does not necessarily increase its validity. Figure 3 illustrates the trajectory of this concept’s popularity and interpretation in comparison to the previous research (Hirsh and Levin 1999; Giroux 2005; Stegar et al. 2018; Aksom 2022). Whereas the model proposed in the prior researches suggests that a concept’s popularity is directly proportional to the breadth of its interpretation, this study reveals a divergent trajectory: as the concept gains popularity, its interpretation becomes increasingly narrow. Previous studies have

posited that a broad interpretation fosters interest from varied and disparate fields, thereby creating opportunities for innovation (Löwy 1999; Stegar et al. 2018). In contrast, a narrow interpretation confines the burden to a limited domain and fails to yield significant benefits or ‘fruits.’

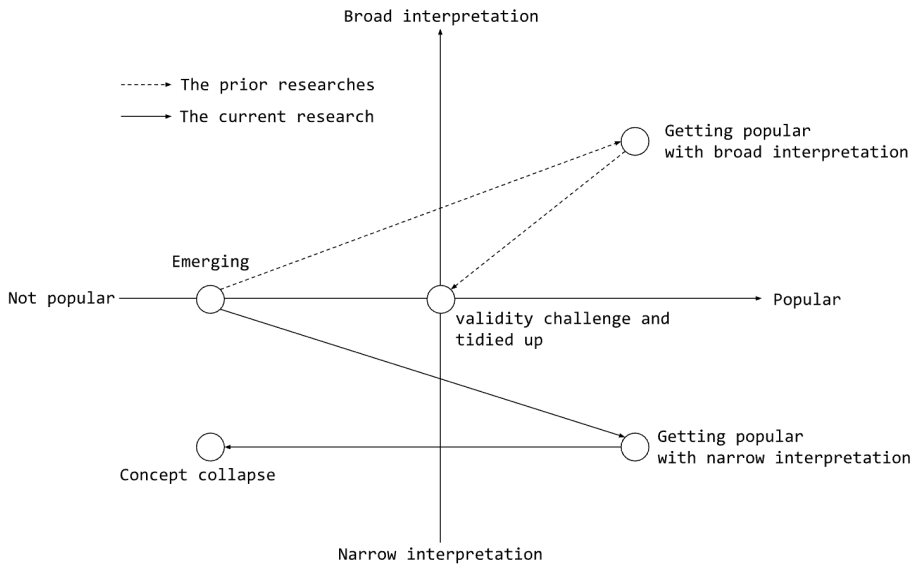


Figure 3. Comparison of trajectories of concept's popularity

In addition, most previous studies have suggested that a narrow interpretation increases the validity of the concept. However, the present study found two other contexts in which narrow interpretation occurs: “overgeneralization context” and “synecdoche context.” As Bergkvist and Eisend (2021) also note, a narrow interpretation does not necessarily arise because of the confusion of the concept, as has been shown. The “large-subject context” arises because the context in which the concept should be placed in the first place is no longer known, and the “metaphorical context” arises because the categories that it should belong to are ignored. This suggests that the narrow interpretation may be the result of conceptual confusion rather than a move to preserve the validity of the concept.

This study reveals that newly introduced concepts immediately face the challenge of narrow interpretation. In light of this, we aim to discuss practical implications for education below. The effective promotion of popularity, while upholding precise definitions for valuable concepts, relies on breaking free from restrictive interpretations.

To begin with, media outlets should exercise greater caution in their information reporting. They need to be more vigilant against oversimplification through the use

of overgeneralizations and synecdoche. It is incumbent upon the media to provide information that accurately reflects academic insights.

School teachers are also confronted with the necessity to exert effort. They should focus on enhancing information literacy and critical thinking. Information from commercial media may not accurately represent academic backgrounds. While media portrayals may seem innovative and appealing, educators, as experts in the field, should critically evaluate and objectively assess such information.

Furthermore, given the media's tendency to generate narrow interpretations, educators should possess an information environment enabling them to confirm correct definitions before integrating new concepts into educational practices. In this context, researchers and educators should actively foster direct collaboration, minimizing reliance on the media. This is crucial to ensure the appropriate integration of academic achievements and theories into school practices.

While selectively utilizing media information is beneficial, relying solely on restrictive media expressions for communication is inadequate. There is a risk that only the names of concepts will take precedence, potentially compromising the essential academic insights behind them when introduced in a school setting. Both researchers and educators must make concerted efforts to facilitate effective communication between them.

5.3 Conclusion

The purpose of this study is to clarify the context in which the replacement of useful and comprehensive concepts with subordinate concepts, which is the cause of their decline, occurs. We used the loanword "active learning" as an example of a useful and comprehensive concept and formulated the following two research questions:

- Q1. When did the narrow interpretation of active learning arise?
- Q2. What discourse characteristics are associated with a narrow interpretation of active learning?

Prior research argues that during the initial stages of a concept's popularity, its interpretation tends to expand. However, our investigation reveals that, in this case, rather than expanding, the interpretation of active learning has been shrinking since the initial stages of its popularity (answer to Q1). This is a significant finding that differs from previous research and suggests that the collapse of a concept may be caused by a reductionist interpretation.

Furthermore, our analyses reveals that discourses attempting to describe “active learning” using overly general or synecdochical language, which deviates from the original context, are more likely to be associated with a narrow interpretation of the concept (answer to Q2). This narrow interpretation occurred during the early stages of its popularity because the mass media reported on active learning without its rigorous and academic examination of the phenomenon that it was trying to capture. However, this does not imply that the mass media is solely responsible; it is difficult to understand academic definitions of active learning. Education scholars and researchers should create a definition that can be easily conveyed, even in media with limited characters, such as newspapers.

In conclusion, the substitution of the subordinate concept for a narrow interpretation led to confusion in the practical field, which was undesirable. This study contributes to our understanding of how an overarching concept can be replaced by a subconcept and highlights the importance of considering the appropriateness of the definition of a concept in different contexts.

This study has certain limitations. First, the data used are limited to newspaper articles, which may not fully capture the wider public discourse on the topic. Second, the logistic regression analysis used in this study only considered the top 35 words, which may not provide a comprehensive analysis; further models that can handle more words need to be explored. Additionally, there may be some subjectivity in the qualitative classification process. Future research should investigate trends and patterns beyond 2017, including the period of decline and explore potential strategies to ensure the continued relevance of important concepts.

Informed Consent

This study is not an experimental investigation on human subjects.

Conflict of Interest

The authors declare that there are no conflicts of interest.

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