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Individual Learning Guidance and the Development of Children's Learning Autonomy: Exploring Mentors' Mental Models at Kumon Permata Cimanggis

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ABSTRACT

Children's work outputs are typically used to evaluate individual learning guidance in non-formal course institutions; however, mentors' perceptions of children's learning processes, which dictate how much autonomy is granted, are rarely investigated. This qualitative study investigates the relationship between children's learning autonomy at the Kumon Permata Cimanggis course institution and mentors' mental images, described as working pictures of a child's actual competence, need for assistance, and next learning step. Three mentors, five children, and two parents were interviewed, and worksheet completion was observed. Thematic analysis distinguished between the researcher's interpretation, answers provided in response to leading questions, and spontaneous utterances. The results demonstrate that: (1) mentors' perceptions of children were constructed based on process indicators rather than just results; (2) decisions to assist were based on children's effort and the type of difficulty; (3) autonomy in young children manifested itself in routines, straightforward decisions, and error correction, whereas in older children it was associated with reasoning, motivation, and goal orientation; and (4) parents differentiated academic assistance from emotional presence. Greater autonomy does not always equate to less assistance. The results do not show causal relationships and are interpretative and limited to a specific institution.

Keywords: *individual learning guidance; learning autonomy; mentors' mental image; non-formal education; course institution*

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Abstract & Indexing

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INTRODUCTION

Course institutions are a type of non-formal education that provides personalized learning. Children complete worksheets at a modified level while mentors watch, provide clarification when needed, and determine when to assist a child and when to let them attempt on their own. Such judgments are frequently made in a single session at the Kumon Permata Cimanggis training institution without being documented. The quality of guiding cannot be evaluated solely by scores, speed, or advancement through worksheet levels because these choices rely on mentors' understanding of the child.

A common goal of guidance is learning autonomy. Autonomy-supportive teaching, which blends a student-centered perspective with a friendly and accommodating interpersonal approach, can be mastered by teachers and helps students, according to a study of 51 intervention studies (Reeve & Cheon, 2021; Alrabai, 2021). According to a meta-analysis of 144 studies, students' psychological need satisfaction and self-determined motivation were more strongly correlated with teachers' autonomy support than with parents' autonomy support. The strongest predictor was competence, followed by autonomy and relatedness (Bureau et al., 2022). However, a systematic assessment of 31 longitudinal studies revealed that nearly all of them relied on questionnaires and that the majority talked about autonomy support in generic terms without outlining particular teaching techniques (Yang et al., 2022). Research on children's independence in Indonesia typically focuses on instructors' approaches and media (Helvayana et al., 2021) or their perceptions of learner autonomy (Sukma & Lengkanawati, 2025). Seldom has attention been paid to the logic that a mentor uses to decide whether to offer or refuse assistance.

Three lines of inquiry can be used to address this logic. The first is the accuracy of teachers' assessments of students, which has been examined over about 40 years and includes assessments of young children's mathematical abilities (Hosoya et al., 2021) as well as assessments of student characteristics, learning outcomes, and task difficulty (Urhahne & Wijnia, 2021). The second is teacher noticing, or the capacity to see and decipher educational occurrences. A review of 182 articles revealed that the majority of this research comprises small-scale qualitative studies that concentrate on mathematics education in North America and Europe (Aguilar et al., 2023). Additionally, a review of teacher noticing within lesson study revealed that the majority of the research was conducted in Western countries and called for cross-cultural studies (Yun et al., 2024; Damrau et al., 2022). The third is adaptive teaching: although teachers hardly ever used adaptive teaching methods, their diagnostic techniques in class discussions helped students develop long-term conceptual knowledge (Hardy et al., 2022; Sibley et al., 2025). The majority of these segments focus on formal classrooms. To the best of the authors' knowledge, few studies have examined mentors' mental images of children receiving one-on-one guidance in non-formal educational institutions.

In contrast to controlling parenting, autonomy support in the context of self-determination theory entails considering the child's point of view, providing options, and allowing the child to participate in problem-solving (Grolnick & Pomerantz, 2022). It is impossible to disentangle autonomy support from a child's perception of capability because the aforementioned meta-analysis found competence to be the biggest predictor; a child who is given room but feels incompetent may withdraw rather than become autonomous. Therefore, autonomy is not defined as the lack of assistance but rather as the child's capacity to determine when to try and when to require assistance. One can grade the help itself. In a meta-analysis of 46 studies, scaffolding that promotes regulated learning had a moderately positive impact on regulation strategies and academic performance (Shao et al., 2023). However, among elementary school students, self-regulated learning was predicted by students' perceptions of teacher support rather than teachers' reported

strategies (Matulaitiene et al., 2025). Thus, a child may not always experience what a guide wants. While children's capacity to maintain motivation is still poorly studied (Trautner & Pinquart, 2025), research on classrooms with strong self-regulated learning also highlights the importance of children's control over choices and work pace (Kersna et al., 2025).

The term "mental image" is used operationally in this study to describe a mentor's working picture of a child's true ability, need for assistance, and potential next learning step. It refers to a pedagogical hypothesis that is reflected in the mentor's explanations and observable actions and updated by the child's subsequent answers; it is not seen as a mental state that the researcher may directly access. The research topics are as follows: (1) how do mentors perceive the child; (2) how does this perception influence decisions to provide assistance; and (3) how do children, mentors, and parents perceive the child's learning autonomy? This paper makes a conceptual and practical contribution. In order to trace, discuss, and improve educational judgments, it changes the question from "how independent is this child?" to "on what signs does the mentor conclude that the child is ready to be given more room?".

METHODS OF RESEARCH

The Kumon Permata Cimanggis course institution is the site of this interpretive qualitative single-case research. Five children (A1–A5), two parents (O1–O2), and three mentors (P1–P3) participated. A5 had studied for almost thirteen years and finished two subjects; A1 and A3 were younger children, while A4 and A5 were older. O2's words are regarded as a parent's perspective rather than a direct triangulation of A1–A5 because O1 is A1's parent and O2's child was not one of the five children examined.

Mentor, child, and parent interviews as well as worksheet completion observations were used to gather data. At the participants' request, the in-person interviews with P1–P3 were documented in written notes without audio recording; as a result, the mentors' testimonies are offered as paraphrases rather than exact quotes. Only when they can be linked to a source document are direct quotes from children used.

The standards of quality practice in reflexive theme analysis, which incorporates the researcher's reflexivity into the analysis, were followed in the thematic analysis of the data (Braun & Clarke, 2021). Three layers of information were identified by the researcher: remarks made by informants on the spur of the moment, responses to leading questions, and the researcher's interpretation. Instead of counting the number of parties who made identical remarks, triangulation was used to analyze agreement, gaps, and conflicts among sources. Themes that contradicted the original presumptions were kept. In addition to providing insight into learning practices, the researcher's involvement in the administration of the organization where the study was carried out also establishes power dynamics and social norms that could influence informants' responses. To ensure privacy, codes were provided to mentors, parents, and children.

RESULT AND DISCUSSION

Result

Mentors' Pictures of Children are Formed by Reading the Process

When assessing a child's readiness to learn, the three mentors placed varying emphasis. Placement-test data, job outcomes, error types, speed, accuracy, and answers to challenging items were all used by P1. While completing worksheets, P2 emphasized basic learning attitudes, attentiveness, precision, agility, and

independence. Concentration, curiosity, motivation, independence, the child's replies, learning progress, and contact with parents were all mixed with academic ability observation in P3. As a result, mentors created images of children based on learning signs that were not exactly the same.

When determining when to assist, P1 made a distinction between children who had tried but were stuck and children who still understood the instructions and were attempting to find a way. P2 only offered assistance if the child continued to struggle after directing them to an example problem or available instructions. P3 provided the child time to try, watched the procedure, and offered guidance as needed. These descriptions, which are paraphrases, are taken from interview notes.

Overall, the findings indicate that mentors recognized children's independence through different combinations of academic performance, learning attitudes, and observable problem-solving behaviors. Despite these differences, all three mentors demonstrated an effort to preserve children's opportunities for independent learning by adjusting the timing and level of assistance according to each child's demonstrated needs.

Different interpretations might be attached to the same behavior. When faced with an issue, a child who remains silent for an extended period of time may be struggling to focus, confused, nervous, or reluctant to seek assistance. Therefore, observations are merely the foundation for educational assumptions that need to be revised based on the child's subsequent reactions. Analytically, a mentor's ability to correctly forecast a child's responses cannot be used to assess the quality of a mental image. The ability to connect observations to pedagogical choices that can be changed is more important: a child who solves a lot of problems does not always comprehend the logic behind the process, and a child who requests assistance does not always lack autonomy.

Decisions to Help are Determined by The Child's Effort and Type of Difficulty

P1 reminded children of previously taught concepts, offered them time to practice, and asked guiding questions to help them review past instances. P2 focused on helping children remember fundamental ideas and allowing them to work on their own once more. At challenging moments, P3 used examples, straightforward questions, or hints rather than immediately providing the solution. Although all three claimed graded assistance, it is insufficient to draw the conclusion that every practice is consistently carried out as reported.

An example of how assistance and opportunities to try followed one another was provided by observation of A1. The youngster read the directions, made an effort to comprehend the worksheet's instructions, and sought clarification when in doubt. A1 carried on working once the mentor clarified as necessary. An answer to 12 + 5 that was first written as 16 was changed to 17 on a different episode. This event's instructional significance lay in a corrective procedure that allowed the child to participate in improving the work; it cannot be reduced to proof that the youngster discovered all flaws on their own.

According to A3, the child accomplished tasks on their own most of the time, thinking things through first and requesting questions only when they were genuinely confused. Here, autonomy manifests as the capacity to control whether to make an effort and when to require assistance. Claims regarding A3's spontaneous methods must be separated from responses that emerged with the interviewer's guidance because some of the interviewer's questions were closed or included alternate solutions. When faced with a challenging issue, A5 attempted to follow past examples and could then consult a mentor or learn through AI. A5 added the feature of selecting sources of assistance. This decision demonstrates that learning initiative can go beyond the direct interaction between a child and mentor, but it does not establish that

digital assistance is beneficial.

Young Children's Autonomy Appears Through Routines, Simple Choices, and Error correction

A1 demonstrated independence through a comparatively consistent series of actions: turning in homework, grabbing the pocketbook, selecting a seat, writing the name, and beginning the assignment. "Nyiapin sendiri," stated A1. I prepare it myself. Aku kerjain PR sendiri. I complete my own schoolwork. The finding is better understood as initiative inside an existing system rather than as freedom to choose learning objectives and content because these acts occurred within the institution's well-known procedures.

A3 worked on the worksheet after praying and getting a pencil and an eraser. English, Indonesian, and mathematics were the order selected by A3. The child's ability to negotiate the learning process is demonstrated by this straightforward but significant order choice. Since young children may have varied methods of understanding and expressing uncertainty, particularly in an interview with an adult, A3's claim to be "nggak pernah bingung" ("never confused") should not be taken literally as the absence of difficulties. While using tools, adhering to the class's flow, providing examples, correcting answers, and seeking assistance can all be indicators of active involvement, they are insufficient to determine the capacity to set long-term goals or oversee the entire learning process.

In Older Children, Autonomy Relates to Reasoning, Motivation, and Future Orientation

A4 detailed how the child's speech, behavior, and problem-solving skills have changed. A4 made a comparison with a buddy who, in A4's opinion, reacted emotionally more rapidly, whereas A4 opted to identify the root of the issue and think of remedies. The interview supports a discussion of self-reflection rather than demonstrating that learning in a specific institution leads to improved emotional control because this comparison is based on the informant's perception rather than a methodical observation of another group.

A4 acknowledged that she had once become demotivated. A4 remembered being reprimanded for whining, but she also connected recovery to the idea that education is preparation for the future. It is important to consider these two factors in tandem: perseverance can be influenced by external pressures or expectations, but it can also develop from personal meaning. A4 discussed learning priorities, a love of reading, and family support during a follow-up interview. There is no evidence that A4 naturally connected learning at this university with the ability to plan for the future because the interviewer included some of the statements regarding the habit of setting targets.

A5 might discuss methods for handling content that is beyond grade level, the practice of using examples, and the choice to pause briefly when bored. A5 used the idea that "kalau misalnya kamu udah mulai sesuatu, kamu harus selesaiin" ("if you have started something, you must finish it") as justification for going back to school. This experience demonstrates that effort regulation does not always require working continuously; as long as the child is able to determine when to continue, halting can be a part of a strategy. Although A5's accomplishments provide significant biographical context, they cannot take the place of proof of autonomy. There is no longitudinal data in this study to distinguish the role of guidance from that of maturity, family support, and other educational experiences.

Parents' Perspectives Distinguish Academic Help from Emotional Presence

Compared to when the child started the program, O1 reported that A1 was now more courageous

to try. The family's perspective on behavioral change is presented in this narrative, but it does not prove that the course instruction was solely responsible for the change. The child was accustomed to beginning Kumon Time without being informed, according to O2. According to O2, the child asked the parents to sit with them when the mathematics content became significantly more advanced than the school grade because they were concerned about their ability to solve the new problems rather than being bored. Although the parents did not resolve the issues, their presence gave the child greater self-assurance. Therefore, intellectual incapacity is not the same as the need for emotional support.

Additionally, according to O2, the child attempted multiple times before asking because they were aware that their family and mentors would not respond right away. This could be interpreted as perseverance, but it also raises the important question of whether the child feels comfortable enough to acknowledge not knowing. The phrase "nggak dijawab" (meaning "not answered") may suggest that the anticipated assistance is not accessible. Both possibilities remain as unresolved interpretations because O2's child was not interviewed. The MSC award and O2's child's performance in a school mathematics selection, which O2 connected to learning at the institution, are interpreted by the family as success rather than as experimental proof of the program's effectiveness. Informants may have modified their accounts to fit the expectations of an interviewer connected to the organization because the interview included questions that led the judgment of the child's change and direct praise of the mentors.

Tension and agreement between sources are shown in Table 1. While parents perceive a child delaying queries because they anticipate not being addressed, mentors may view small cues as an empowering tactic. In order to make the results appear consistent, this tension in the data must be explained rather than eliminated.

Table 1. Synthesis Of Findings Across Sources

Aspect	Mentors	Children	Parents	Remaining tension
Basis for reading the child	Placement test, error types, speed, accuracy, focus, interest, motivation, response to difficult items.	A1 and A3 described preparation routines.	O1 saw the child become braver at trying; O2 saw the child start without being told.	Mentors use different signs; speed does not automatically indicate autonomy.
Giving help	Allowing time to try, examples, guiding questions, graded hints.	A1 asked for direction and then continued; A3 mostly worked alone; A5 followed examples, then asked a mentor or used AI.	O2's child tried several times before asking, knowing that questions would not be answered directly.	Minimal hints are read by mentors as empowerment, but may be read by children as help that is unavailable.

Aspect	Mentors	Children	Parents	Remaining tension
Forms of autonomy	Independence while completing worksheets.	Routines (A1), order of subjects (A3), strategies and pauses (A5), self-reflection (A4).	Braver at trying (O1); accompanied without being given solutions (O2).	Calm and compliant behaviour is not necessarily autonomy; initiative occurs within the institution's structure.
Motivation and pressure	P3 observed motivation and the child's responses.	A4 once lost motivation and recovered through a sense of future purpose, but also mentioned being scolded; A5 paused when bored.	O2: the child was worried about being able to do the work, not bored.	Persistence may grow from personal meaning and also be shaped by environmental pressure.

Source: authors' synthesis of interviews and observation.

Discussion

Mental Image as Temporary and Relational Pedagogical Knowledge

The results demonstrate that a mentor's perception of a child is based on the interpretation of outward behaviors rather than direct access to the child's inner experience and talents. This aligns with the evaluation of teacher judgment accuracy, which views judgment as an interpretation of varied quality that affects instruction (Urhahne & Wijnia, 2021). The teacher noticing view that what is paid attention to determines what can be concluded is supported by the various sites of attention of P1, P2, and P3 (An et al., 2019). Just as apparent motivation does not ensure that a child feels comfortable asking for assistance, speed or accuracy do not always imply autonomy. From an ontological perspective, learning capacity is not seen as a single characteristic that is constant; a child may be self-sufficient in daily activities but require assistance when confronted with novel ideas. According to epistemology, a mentor's knowledge is developed by interaction and needs to be continuously compared to the child's answers.

The change in the question from "how independent is this child?" to "on what signs does the mentor conclude that the child is ready to be given more room?" is the study's analytical contribution. Although the second issue relates to individual guiding at a non-formal institution—a setting that has never been the focus of previous reviews—it is congruent with the emphasis on diagnostic strategies in adaptive instruction (Hardy et al., 2022; Bureau et al., 2022; Yun et al., 2024). Individual learning's flexibility allows for both responses that meet the child's needs and inconsistent judgments in the event that the logic is not conveyed.

Good Help is Not The Least Help

In keeping with research showing scaffolding for regulated learning might be helpful, the use of examples, straightforward questions, and few clues demonstrates an attempt to maintain the child's thinking (Shao et al., 2023). The effectiveness of practice at this institution cannot be evaluated using that meta-analysis because it was based on studies other than this particular case. According to this study, autonomy

is not always supported by a reduction in assistance. When a child is struggling, a parent who just sits close to them can alter their emotional experience without providing an intellectual remedy. This broadens the conversation from the quantity of assistance to its purpose, such as conceptual support, bolstering a sense of security, or aiding in decision-making.

Because competence is the best indicator of self-determined motivation, O2's child's anxiety over handling new material is related to the idea that autonomy might be undermined by limiting assistance before the child has developed a sense of capability (Bureau et al., 2022). In contrast to control, autonomy support is defined as considering the child's point of view and working together to solve problems, which is consistent with the finding that the presence of parents without answers boosted the child's confidence (Grolnick & Pomerantz, 2022). Furthermore, the discrepancy between mentors' intentions and children's experiences that is, minimum suggestions against a child who waits to ask recalls the discovery that self-regulated learning was predicted by students' perceptions of support rather than teachers' reported techniques (Matulaitiene et al., 2025). Thus, "the child can work without help" and "the child feels not allowed to ask for help" are very different. While the latter may block communication regarding difficulty, the former may suggest greater capacity. Therefore, a declining number of inquiries alone cannot be a sign of autonomy; mentors must also see if the child can identify what is still unclear, understands why hints are given, and feels comfortable asking when their own efforts fall short.

Access to both mentors and AI in A5's situation demonstrates an increase in available resources. The question still stands: does the child's logic get reinforced or replaced by support? In non-formal practice, this question is more useful than a standard guideline on the number of times a child may receive assistance. In actuality, the institution must determine whether the child is capable of evaluating the appropriateness of the guidance they have received.

Autonomy as A Practice That Differs by Experience and Situation

The comparison of A1–A5 demonstrates that although autonomy in younger children takes the form of planning to learn, selecting the sequence of activities, and providing examples, in older children it takes the shape of goal orientation, controlling boredom, selecting resources for assistance, and reflecting on the learning process. While A1's initiative within the institution's familiar structure is consistent with a study of independence in children aged 5-6 years that highlights the role of teachers' methods and media and the greatest difficulty at the beginning of schooling (Helvayana et al., 2021), A3's choice of subject order is consistent with the picture of classrooms that give children control over choices and pace of work (Kersna et al., 2025). Because the informants varied in age and experience and were not monitored using the same longitudinal design, these discrepancies should not be interpreted as universal stages.

A4 and A5 demonstrate that motivation is not a stable state: A5 momentarily stopped when bored, while A4 once lost enthusiasm. According to an integrative review, further study is needed on children's capacity to maintain motivation on challenging tasks, specifically on motivation monitoring and control (Trautner & Pinquart, 2025). These findings highlight the significance of looking at how children perceive challenges, consider their objectives, and ultimately decide to keep going. A4's comment of receiving a reprimand necessitates a critical interpretation of the outside pressure that goes along with the development of commitment. The necessity of examining the guide's own concept of autonomy, which in this study manifests in the many signs employed by P1–P3, is highlighted by a case study of how one instructor comprehends and implements learner autonomy (Sukma & Lengkanawati, 2025). Lastly, the success tales of A5 and O2's child run the risk of ensnaring the study in a success story. In order to prevent its contribution

from turning into institutional promotion, this study isolates academic accomplishment from evidence of the learning process, that is, the activities of trying, considering difficulty, seeking help, and judging the next step.

CONCLUSION

In relation to research topics 1 and 2, this study demonstrates that a mentor's mental image can be interpreted as a working representation developed through observing the learning process and used to adjust instructional support. Because different mentors focus on different indicators, these representations vary and are most useful when treated as provisional judgments that remain open to revision. Children's autonomy manifested itself in various ways, ranging from younger children taking the initiative to prepare learning activities to older children reflecting on learning objectives and strategies (research topic 3). The most significant finding is the complex relationship between developing autonomy and reducing assistance: although limited assistance can encourage independent thinking, insufficient support or an environment perceived as unsafe may discourage children from expressing their difficulties. Practically, these findings provide mentors with a basis for adapting the timing and level of assistance to each child's learning needs, recognizing individual expressions of autonomy, and creating a supportive environment in which children feel comfortable seeking help while maintaining opportunities for independent learning. Accordingly, the institution is encouraged to examine whether children feel comfortable asking questions, document the reasons for providing assistance during mentor case discussions, and distinguish academic assistance from emotional support when communicating with parents. Given its interpretive nature and focus on a single institution, the findings are intended to contribute conceptual insights that can be examined and further developed in other educational contexts.

AUTHOR CONTRIBUTIONS

Sintya Yulandari contributed to the conceptualization of the study, development of the research design and methodology, and preparation of the initial manuscript. Adin Ariyanti Dewi contributed to the theoretical framing of mentors' mental images, critical review of the interpretation of findings, substantive revision of the manuscript, and final editing. Both authors discussed the research findings, reviewed and approved the final version of the manuscript, and are responsible for the integrity and accuracy of the work.

CONFLICT OF INTEREST

The authors declare that there are no financial or non-financial conflicts of interest that could have influenced the conduct, analysis, or reporting of this study. The research was conducted in accordance with the principles of objectivity, transparency, and academic integrity.

ARTIFICIAL INTELLIGENCE (AI) USE STATEMENT

The authors used artificial intelligence (AI) tools to assist with manuscript drafting, English translation, grammar checking, and improving clarity and structure. AI was not used to collect or generate

research data. The authors are fully responsible for the content, findings, interpretations, citations, and overall integrity of the manuscript.

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