

Chaos in Freedom: Understanding Positive and Negative Freedom through Classroom Disorder and Montessori Education

Kalea Humayraa Nasution¹, Putu Ega Yudia Mastika¹

¹Cendekia Harapan School, Bali, Indonesia

ARTICLE INFO

Keywords:

Freedom;
Classroom order;
Isaiah Berlin;
Montessori education;
Qualitative study

Article history:

Received 2026-01-20

Revised 2026-02-19

Accepted 2026-03-24

ABSTRACT

Freedom is commonly associated with choice, agency, and personal growth, yet everyday classroom experience shows that freedom without structure can quickly become disorder. This study examines how freedom can be used responsibly in educational settings by interpreting a classroom incident of disruption through Isaiah Berlin's distinction between positive and negative liberty and Maria Montessori's principle of freedom within order. The study asks three questions: why freedom sometimes leads to disorder in group settings, how rules and guidance make freedom meaningful, and what educational insight can be drawn from Berlin and Montessori for managing freedom productively. Using a qualitative design, the study draws on classroom observation, a focused literature review, and Socratic interviews with five classmates. The findings indicate that unstructured freedom initially produced excitement but rapidly evolved into noise, confusion, and reduced mutual consideration. Interpreted through Berlin, the classroom displayed "freedom to" act without sufficient "freedom from" disruption. Interpreted through Montessori, the episode illustrates that choice becomes educationally valuable only within a prepared environment shaped by norms, routines, and responsibility. The study contributes a child-centered and theoretically grounded account of why rules do not necessarily limit freedom, but can instead make meaningful freedom possible in classroom life.

This is an open access article under the CC BY SA license.



Corresponding Author:

Putu Ega Yudia Mastika

Cendekia Harapan School, Bali, Indonesia; ega@cendekiaharapan.sch.id

1. INTRODUCTION

Freedom is often celebrated as a positive human condition because it allows individuals to choose, act, and develop according to their interests and intentions. In educational settings, freedom is especially important because it is closely linked to curiosity, independence, initiative, and the growth of personal responsibility. Students who are given meaningful opportunities to choose tasks, express views, and regulate parts of their learning are generally more motivated and more engaged in classroom activity. At

the same time, educational research has repeatedly shown that freedom in learning does not function well as a simple absence of control. Students tend to benefit most when autonomy is supported together with clear expectations, structured guidance, and a predictable social environment (Jang et al., 2010; Mammadov & Schroeder, 2023; Patall et al., 2024; Patzak & Zhang, 2025).

This tension between freedom and structure became visible in an elementary classroom incident that forms the basis of this study. When the teacher briefly left the classroom because of illness, the atmosphere initially felt exciting and unrestricted. Students talked loudly, moved furniture, and treated the moment as an opportunity to act without constraint. What first appeared to be enjoyable freedom soon developed into confusion, rising noise, and disregard for shared order. The episode raised a practical and philosophical question: why does freedom, which is often associated with happiness and self-expression, sometimes create disorder rather than growth?

This question matters because classrooms are shared environments, not merely collections of individual preferences. A student's freedom is always exercised in relation to the presence, rights, and needs of others. For this reason, educational freedom cannot be understood adequately as unrestricted choice alone. Research on autonomy-supportive teaching shows that students are more engaged when teachers provide meaningful choice, acknowledge student perspective, and use non-controlling forms of guidance, but the same body of literature also emphasizes the role of structure, clarity, and expectations in supporting competence and sustained engagement (Jang et al., 2010; Reeve, 2006; Yang et al., 2022). The point is not that students learn best under rigid control, but that meaningful autonomy is strongest when it is supported by a stable framework within which action makes sense.

The present study approaches this issue through two complementary theoretical lenses. The first is Isaiah Berlin's distinction between negative and positive liberty. Berlin's work remains highly influential in political and moral thought because it distinguishes between freedom as non-interference and freedom as self-direction. In broad terms, negative liberty refers to freedom from external interference, whereas positive liberty concerns the ability to direct one's own life and act intentionally (Berlin, 2002). Although Berlin developed these ideas within political theory, the distinction is useful for classroom analysis. Students may experience freedom to choose and act, yet still lack freedom from noise, disruption, or instability. In that sense, a disorderly classroom can contain choice without providing the conditions necessary for meaningful exercise of that choice.

The second lens is Maria Montessori's educational philosophy. Montessori argued that children learn most deeply when they are given purposeful freedom within an ordered and prepared environment. Her model does not treat discipline as the opposite of freedom. Rather, it sees discipline as something that emerges when the environment, materials, routines, and social expectations support independent work and mutual respect (Montessori, 1995). Modern empirical work on Montessori education similarly suggests that environments characterized by structured independence, sustained work periods, and student responsibility can support academic and social development (Lillard & Else-Quest, 2006; Rathunde & Csikszentmihalyi, 2005a, 2005b). In this sense, Montessori offers an educational vocabulary for understanding why freedom without order may not become genuine independence.

The relevance of combining Berlin and Montessori lies in their shared concern with the conditions under which freedom becomes meaningful. Berlin helps explain that freedom has more than one dimension. Montessori helps explain how those dimensions can be cultivated in practice within an educational setting. Existing literature has often examined autonomy support, classroom climate, and engagement in motivational terms, and it has separately examined the characteristics of Montessori schooling. However, everyday classroom disorder is less often interpreted through a combined philosophical and pedagogical account that asks what kind of freedom is actually present when guidance disappears. This study contributes to that interpretive gap by bringing Berlin's conceptual distinction and Montessori's educational practice into direct conversation with a child-centered classroom case.

The study addresses three questions. First, why does freedom sometimes lead to disorder, especially in group settings such as classrooms or playgrounds? Second, how can rules and guidance help students enjoy freedom in a positive and meaningful way? Third, what can be learned from Isaiah Berlin's concept

of freedom and the Montessori method to develop better systems for managing freedom? These questions remain consistent throughout the paper and guide the analysis of both data and theory.

The contribution of the study is modest but meaningful. It does not claim statistical generalization. Instead, it offers an analytically rich account of how students experience freedom in a shared educational setting and why structure should not be treated as the enemy of liberty. In practical terms, the study argues that rules, routines, and adult guidance are not simply restrictions placed upon students. When appropriately designed, they are enabling conditions that protect learning, fairness, and mutual respect. In conceptual terms, the study shows that the distinction between “freedom to” act and “freedom from” disruption is useful for interpreting classroom life. In pedagogical terms, it argues that Montessori’s balance of choice and order offers a productive model for transforming freedom from impulsive release into responsible participation.

2. METHODS

2.1. Research Design

This study employed a qualitative design because the purpose was to understand how freedom was experienced, interpreted, and enacted in a particular classroom context. Qualitative inquiry is appropriate when a study seeks detailed understanding of behavior, perception, and meaning rather than numerical measurement alone (Creswell & Poth, 2016). The study did not attempt to test a causal model statistically. Instead, it aimed to interpret a classroom event and relate that event to broader ideas about liberty, guidance, and educational order.

The design was small-scale and case-based. Its strength lies in close attention to a concrete setting: an elementary classroom in which a temporary absence of the teacher triggered observable changes in student behavior. Rather than treating the incident as a minor disruption, the study considered it an opportunity to reflect on what freedom means in everyday educational life.

2.2. Setting and Participants

The study was conducted in the researcher’s own school context at Cendekia Harapan School. The central observational setting was the classroom during a moment when the teacher had to leave because of illness. In addition to observation of the class as a group, the study included Socratic-style interviews with five classmates. These classmates were not treated as a statistically representative sample. Their role was to provide varied student perspectives on how freedom felt when rules were temporarily unenforced and whether rules improved or reduced the quality of freedom.

2.3. Data Collection Procedures

Three sources of data were used: observation, literature review, and Socratic interviews.

Observation focused on student behavior during the teacher’s absence. Attention was given to how the atmosphere developed over time, how students responded to the absence of authority, and how quickly actions moved from energetic freedom to collective disorder. The observation tracked not only isolated acts such as loud talking or moving around, but also the escalation pattern by which a few students’ behavior gradually affected the class as a whole.

The literature review provided the conceptual basis for interpreting the observed event. It included reading on Isaiah Berlin’s distinction between positive and negative liberty, Montessori’s understanding of freedom and discipline, and educational studies on autonomy support, structure, engagement, and classroom climate. The review was not intended as a separate systematic review. Its purpose was interpretive: to connect the classroom case to established theoretical discussions relevant to the study’s questions.

The third source of data was the Socratic interview. This method was used not as formal philosophical debate, but as a guided form of reflective questioning. The researcher asked open-ended questions such as why students tend to become louder when the teacher is absent, whether freedom

means doing whatever one wants, and whether rules make freedom better or worse. The approach encouraged classmates to think through their own assumptions rather than merely provide short factual answers. This was appropriate because the study concerned meanings of freedom, not only actions.

Table 1. Summary of Research Design and Data Sources.

Component	Description	Analytical Function
Observation	Classroom behavior during teacher absence	Identified the sequence from excitement to disorder
Literature review	Berlin, Montessori, and educational research on autonomy and structure	Provided theoretical grounding for interpretation
Socratic interviews	Open-ended questioning with five classmates	Revealed how students understood freedom, rules, and responsibility

Table 1 describes the basic structure of the study. The three data sources were used not in isolation but as complementary forms of evidence.

2.4. Data Analysis

Analysis proceeded by reading the observation notes and interview responses repeatedly in order to identify recurring patterns relevant to the research questions. The literature review was then used to interpret those patterns. Three interpretive concerns guided the analysis.

First, the study examined the conditions under which freedom shifted into disorder. This involved identifying triggers such as the absence of guidance, unclear expectations, imitation among classmates, and weakened attention to the group's shared needs.

Second, the study examined how Berlin's distinction between kinds of freedom clarified the situation. The question here was whether the classroom exhibited the presence of choice without the protection needed for meaningful use of that choice.

Third, the study examined the extent to which Montessori's principle of freedom within order explained why the classroom moved away from learning once routines and guidance were absent.

The study relied on triangulation in a limited but useful sense. Observation captured actual behavior, interviews provided student interpretation, and theory offered conceptual explanation. The purpose was not to claim perfect objectivity but to strengthen interpretive credibility by bringing different forms of evidence into conversation.

3. FINDINGS AND DISCUSSION

3.1. Freedom and Classroom Disorder

The first major finding is that the classroom did not become chaotic simply because students were free. It became chaotic because freedom was suddenly detached from shared structure. Observation showed a clear pattern. The initial atmosphere was lively and enjoyable. Students experienced the teacher's absence as a break from ordinary expectations. Yet this perceived release did not remain neutral. It developed into louder talking, unnecessary movement, playful disruption, and declining attention to others. Most importantly, disorder spread socially. What began with a few students gradually involved a larger portion of the class.

This pattern suggests that freedom in group settings is relational rather than purely individual. One student's uninhibited action changes the conditions under which others can act. A loud group narrows the possibility for quiet concentration. Rearranged chairs affect movement and order. Playful rule-breaking invites imitation. The observation therefore indicates that disorder emerged through interaction, not only through isolated personal choices. In practical terms, the absence of guidance created a vacuum in which the strongest immediate impulse became more influential than shared responsibility.

Educational research helps explain this pattern. Studies on student engagement and teacher behavior have long suggested that autonomy support is effective when paired with structure, because students

need both opportunities for initiative and a framework that communicates expectations and stability (Jang et al., 2010; Reeve, 2006; Skinner & Belmont, 1993). More recent meta-analytic evidence likewise indicates that teacher autonomy support and classroom structure are mutually reinforcing rather than contradictory conditions for student motivation and engagement (Mammadov & Schroeder, 2023; Patall et al., 2024; Patzak & Zhang, 2025). The classroom incident in this study offers a concrete illustration of what occurs when the second condition disappears abruptly. Choice remains, but coherence weakens.

This finding answers the first research question in a preliminary way. Freedom leads to disorder in group settings when it is interpreted as the removal of all shared limits rather than as the responsible use of choice within a social environment. The problem, then, is not freedom itself. The problem is freedom without a sustaining structure that protects collective participation.

3.2. Berlin's Concept of Freedom

The second finding is that Berlin's distinction between positive and negative liberty helps explain the specific kind of freedom present in the classroom. The class experienced a strong sense of immediate "freedom to." Students could talk, move, joke, and act without the teacher's direct intervention. From a child's perspective, this was an obvious form of freedom because restrictions appeared to have disappeared. Yet the same setting lacked "freedom from" disruption. Students were not protected from noise, confusion, unfair competition for attention, or the breakdown of a learning atmosphere. In other words, the presence of one dimension of freedom coincided with the absence of another.

This distinction matters because children often equate freedom with release from adult direction. Berlin's framework complicates that assumption. Freedom is not exhausted by the ability to do what one wants in a given moment. It also involves the conditions that allow action to remain meaningful rather than immediately undermined by surrounding disorder (Berlin, 2002). In the classroom case, students could choose, but the environment no longer supported concentration, fairness, or mutual regard. The result was a shallow form of liberty: abundant immediate action but reduced educational possibility.

The interviews reinforce this interpretation. Some classmates described the absence of rules as exciting. Others described it as confusing. This contrast is important. It shows that the same condition was not experienced uniformly as liberation. For some students, the classroom became more enjoyable. For others, it became less secure and less workable. The finding suggests that unstructured freedom can privilege those who are most willing to dominate shared space while disadvantaging those who need calm, predictability, or protected turn-taking.

Berlin's distinction also helps explain why the classroom problem was not simply a matter of discipline in the narrow sense. The issue was not merely that students "misbehaved." The deeper issue was that the classroom stopped offering a common condition in which freedom could be distributed fairly. If some students gained greater immediate liberty by acting loudly or impulsively, others lost the practical freedom to learn, listen, or participate peacefully. In that sense, one student's unrestricted action reduced another student's effective freedom. This is precisely why liberty in shared settings cannot be understood as a purely private matter.

A further implication emerges here. Berlin is often discussed in political philosophy, but the classroom case shows that his distinction can illuminate educational life in a concrete way. A child-centered application of Berlin does not require abstract political institutions in order to be meaningful. It only requires a setting in which multiple people must coordinate their freedom. The classroom is one such setting. The study therefore shows that Berlin's concepts are not only philosophically relevant but pedagogically useful.

3.3. Montessori's Structured Freedom

The third finding is that Montessori's educational philosophy offers a practical explanation for why rules and order can make freedom more meaningful rather than less. In Montessori education, freedom is not the absence of limits. It is the guided ability to choose work, move purposefully, and develop independence within a prepared environment. Such an environment includes routines, accessible

materials, mutual respect, and clear expectations about how freedom is exercised. Montessori's key insight is that discipline is not imposed from outside as a permanent substitute for self-control. Instead, structure helps children gradually form self-discipline through repeated participation in meaningful activity (Montessori, 1995).

The classroom incident in this study shows what happens when those enabling conditions disappear. Students remained free in a superficial sense, but that freedom no longer directed attention toward purposeful activity. Instead, it moved toward short-term excitement. Montessori's perspective helps clarify that this was not authentic independence. Independence requires orientation, self-regulation, and an environment that invites responsible action. A classroom with no active guidance and no functioning routine does not automatically produce those qualities. It may instead expose how dependent students still are on external structure for maintaining mutual order.

Empirical research on Montessori environments supports this interpretation. Studies comparing Montessori and traditional educational contexts have found that Montessori settings can support motivation, social community, and positive perceptions of the school environment when freedom is embedded in coherent practice rather than treated as mere permissiveness (Lillard & Else-Quest, 2006; Rathunde & Csikszentmihalyi, 2005a, 2005b). These findings do not mean that Montessori classrooms are free of rules. On the contrary, they suggest that orderly independence is one of the method's defining strengths.

The present study therefore supports a central Montessori principle: structure does not necessarily suppress individuality. It can protect the conditions under which individuality becomes responsible and educationally productive. This is particularly important in elementary settings, where students are still developing habits of attention, patience, and self-regulation. Too little freedom can weaken initiative, but too little structure can make initiative collapse into impulse.

The interviews point in the same direction. Although some classmates enjoyed the sense of unrestricted choice, others indicated that rules made freedom better rather than worse. This response is pedagogically significant. It suggests that even children can recognize that rules are not always hostile to liberty. When rules are experienced as fair, understandable, and connected to shared well-being, they may be interpreted as supports rather than punishments.

3.4. Students' Views on Freedom

A fourth finding concerns the emotional and social meaning of freedom for students. The interviews did not show a simple opposition between students who love freedom and students who prefer control. Instead, they revealed ambivalence. Freedom was associated with excitement, enjoyment, and the pleasure of acting without immediate restriction. At the same time, it was also associated with confusion and loss of order. This ambivalence is central to the study because it prevents an overly simple conclusion.

Children are not wrong to value freedom. The initial joy reported in the classroom matters. It reflects a real desire for agency, play, and room for expression. A well-designed classroom should not attempt to eliminate that desire. However, the same data show that freedom becomes unstable when students are not oriented toward mutual responsibility. The class enjoyed release, but not all students enjoyed what release became.

This finding helps explain why debates about freedom in education can become polarized. One side may emphasize independence and student voice, while another emphasizes rules and authority. Yet the data from this study suggest that children themselves experience both needs at once. They want choice, but they also need reliable conditions in which choice does not become collective disruption. The problem is not that freedom and order are opposites. The problem is that educational practice often treats them as if one must be sacrificed for the other.

Current literature on student engagement supports the value of seeing autonomy and structure together. Reviews of longitudinal and meta-analytic research indicate that autonomy-supportive practice is consistently related to engagement, motivation, and positive learning outcomes, while also noting that specific strategies are most effective when paired with guidance, expectations, and purposeful interaction

(Mammadov & Schroeder, 2023; Patzak & Zhang, 2025; Yang et al., 2022). The student responses in this study are consistent with that broader pattern. They imply that children do not simply need more or less freedom. They need forms of freedom that remain socially workable.

3.5. Rules, Guidance, and Meaningful Freedom

The final interpretive finding is that rules and guidance should be understood not primarily as limits on liberty, but as enabling conditions for shared freedom. This conclusion follows from both theory and data. In the observed classroom, the absence of guidance did not expand meaningful participation for everyone. Instead, it made the environment more vulnerable to noise, imitation, and impulsive action. In Berlin's terms, the class retained some freedom to act but lost freedom from disruption. In Montessori's terms, the environment no longer supported purposeful independence.

Rules become educationally valuable when they do at least three things. First, they protect the common space from domination by the loudest or most impulsive behavior. Second, they make expectations clear enough that students can act independently without constant confusion. Third, they shift the meaning of freedom from spontaneous release toward responsible participation. When rules serve these purposes, they are not merely restrictive. They sustain the very environment in which learning and self-direction can occur.

This interpretation also helps refine the relationship between authority and autonomy. The study does not argue for stricter control as an end in itself. Nor does it romanticize child freedom as naturally self-regulating under all conditions. Instead, it suggests that guidance is most educationally effective when it gradually moves students toward internal responsibility. The goal is not obedience for its own sake, but the formation of habits that allow students to use freedom well.

Table 2. Summary of Major Findings.

Major finding	Empirical basis	Theoretical interpretation
Freedom escalated into disorder when guidance disappeared	Observation of rising noise, movement, and imitation	Unstructured choice weakened shared order
Students had freedom to act but not freedom from disruption	Observation and interview responses	Berlin's distinction clarifies incomplete freedom
Rules were seen by some students as improving freedom	Socratic interviews	Guidance can enable rather than suppress liberty
Meaningful independence requires an ordered environment	Observation plus literature review	Montessori's prepared environment supports responsible freedom
Major finding	Empirical basis	Theoretical interpretation

Table 2 synthesizes the main analytical claims emerging from the study. The broader educational implication is straightforward but important. Schools should neither fear freedom nor glorify it in unstructured form. The more useful aim is structured freedom: a condition in which students can choose, speak, and act, but within a framework that protects others and preserves the classroom as a place for learning. This conclusion applies beyond the immediate case. In playgrounds, homes, and later community life, freedom works best when individual action is balanced with shared norms. The classroom is therefore not only a place where this balance is needed. It is one of the first places where it can be learned.

4. CONCLUSION

This study set out to examine why freedom sometimes leads to disorder, how rules and guidance can make freedom meaningful, and what can be learned from Isaiah Berlin and Maria Montessori for managing freedom in educational settings. The findings show that the central problem was not freedom itself, but freedom detached from structure. Observation of a classroom incident revealed that the sudden absence of guidance produced an initial sense of excitement that quickly turned into noise, confusion, and weakened collective responsibility. Interviews with classmates confirmed that freedom was experienced ambivalently: enjoyable for some, but disorienting for others.

Interpreted through Berlin's framework, the classroom displayed an imbalance between freedom to act and freedom from disruption. Students gained immediate room for action but lost the protected conditions necessary for meaningful participation and learning. Interpreted through Montessori, the same episode demonstrates that authentic independence requires a prepared environment in which choice is accompanied by routine, order, and responsibility. Taken together, these perspectives support the conclusion that rules and guidance do not necessarily oppose liberty. In classroom life, they often make liberty workable.

The study contributes a small-scale but conceptually grounded account of freedom in elementary education. Its main contribution is the argument that structured freedom is a more educationally useful ideal than either unrestricted permissiveness or rigid control. The study also shows that philosophical ideas about liberty can illuminate practical problems in everyday classroom life.

Several limitations should be acknowledged. The study was confined to one classroom context, one particular type of incident, and a small number of interview participants. Its findings are therefore interpretive rather than statistically generalizable. Future research could examine similar questions across multiple classrooms, compare different school cultures, or explore how peer leadership, routines, and classroom norms shape the balance between autonomy and order over time. Even with these limitations, the study suggests an important conclusion for educators and students alike: freedom is most valuable when it is shared responsibly, protected from disruption, and supported by structures that allow everyone to learn and participate.

REFERENCES

- Berlin, I. (2002). Two Concepts of Liberty. In I. Berlin & E. by H. Hardy (Eds.), *Liberty* (p. 0). Oxford University Press. <https://doi.org/10.1093/019924989X.003.0004>
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications.
- Jang, H., Reeve, J., & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Psychology, 102*(3), 588–600. <https://doi.org/10.1037/a0019682>
- Lillard, A., & Else-Quest, N. (2006). Evaluating Montessori Education. *Science, 313*(5795), 1893–1894. <https://doi.org/10.1126/science.1132362>
- Mammadov, S., & Schroeder, K. (2023). A meta-analytic review of the relationships between autonomy support and positive learning outcomes. *Contemporary Educational Psychology, 75*, 102235. <https://doi.org/10.1016/j.cedpsych.2023.102235>
- Montessori, M. (1995). *The Absorbent Mind*. Henry Holt and Company.
- Patall, E. A., Yates, N., Lee, J., Chen, M., Bhat, B. H., Lee, K., Beretvas, S. N., Lin, S., Man Yang, S., Jacobson, N. G., Harris, E., & Hanson, D. J. (2024). A meta-analysis of teachers' provision of structure in the classroom and students' academic competence beliefs, engagement, and achievement. *Educational Psychologist, 59*(1), 42–70. <https://doi.org/10.1080/00461520.2023.2274104>
- Patzak, A., & Zhang, X. (2025). Blending Teacher Autonomy Support and Provision of Structure in the Classroom for Optimal Motivation: A Systematic Review and Meta-Analysis. *Educational Psychology Review, 37*(1), 17. <https://doi.org/10.1007/s10648-025-09994-2>

- Rathunde, K., & Csikszentmihalyi, M. (2005a). Middle School Students' Motivation and Quality of Experience: A Comparison of Montessori and Traditional School Environments. *American Journal of Education*, 111(3), 341–371. <https://doi.org/10.1086/428885>
- Rathunde, K., & Csikszentmihalyi, M. (2005b). The Social Context of Middle School: Teachers, Friends, and Activities in Montessori and Traditional School Environments. *The Elementary School Journal*, 106(1), 59–79. <https://doi.org/10.1086/496907>
- Reeve, J. (2006). Teachers as Facilitators: What Autonomy-Supportive Teachers Do and Why Their Students Benefit. *The Elementary School Journal*, 106(3), 225–236. <https://doi.org/10.1086/501484>
- Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, 85(4), 571–581. <https://doi.org/10.1037/0022-0663.85.4.571>
- Yang, D., Chen, P., Wang, H., Wang, K., & Huang, R. (2022). Teachers' autonomy support and student engagement: A systematic literature review of longitudinal studies. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.925955>

