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Neutroaxiomatic Coding Geometry for Teaching Quality of University Chinese Language and Literature Courses

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Abstract: Chinese Language and Literature courses require students to balance formal features of language with cultural-historical context, and their work often exhibits partial correctness, ambiguity, and occasional contradiction. We introduce a new framework Neutroaxiomatic Coding Geometry that evaluates teaching quality by combining three components: (i) a Neutroaxiomatic Rhetoric Geometry (NARG) that encodes interpretive axioms and anti-axioms as partially true/indeterminate/false items; (ii) Didactic Neutrosophic Quadruple Codes (DNQC) that represent assessed artifacts as quadruples and check program requirements through parity constraints; and (iii) a Partial Bipolar Hermeneutic Metric (PBHM) that measures coherence between formal analysis and cultural interpretation, allowing asymmetric left/right convergence. We prove basic properties (bounds, monotonicity, and feasibility under parity constraints) and define a Chinese Literature Neutroaxiomatic Quality Index (CLNQI) that aggregates the three signals. A fully calculated case study on two core courses shows how CLNQI pinpoints specific instructional gains (axiom adherence), structural gaps (code parity failures), and interpretive imbalances (bipolar distances), offering a precise, reproducible basis for course review and curriculum improvement.

Keywords: neutroaxiom; anti-axiom; NeutroGeometry; Neutrosophic Quadruple code; parity check; partial bipolar metric; Chinese literature pedagogy.

1. Introduction

The teaching of Chinese language and literature at the university level involves a rich blend of elements that shape students' understanding and skills. This includes formal aspects such as diction, prosody, syntax, and narrative techniques, as well as cultural and historical dimensions like literary eras, intertextual references, and genre conventions [1]. In practice, student work in these courses often falls into a gray area: it is neither fully correct nor entirely wrong, but rather somewhere in between, with varying degrees of clarity, ambiguity, or contradiction. Traditional evaluation methods struggle to capture this nuance, as they typically rely on binary judgments of right or wrong, which do not account for the indeterminate or partially valid interpretations common in literary analysis [2].

To address this challenge, neutrosophic logic offers a powerful framework. Developed as an extension of classical and fuzzy logics, neutrosophic sets allow for the representation of truth, indeterminacy, and falsity as independent components, each ranging from 0 to 1 [3]. This triplet structure is particularly useful in humanities education, where an interpretive axiom, such as a rubric criterion for analyzing a poem's motif, might be partly true in one context, partly indeterminate due to ambiguous evidence, or partly false in another. Building on this, concepts like NeutroGeometry and AntiGeometry extend neutrosophic ideas to geometric structures, where axioms can be neutrosophic (partially holding with indeterminacy) or even anti-axiomatic (fully denied in specific cases) [4]. In the context of Chinese literature teaching, we adopt this neutroaxiomatic approach to model students' interpretive behaviors, providing a more flexible and realistic way to assess coursework that reflects the inherent uncertainties of literary criticism.

However, evaluating individual assignments alone is not enough to ensure overall teaching quality. A key concern is whether a course adequately covers the intended curriculum, including a balanced representation of genres, historical periods, and rhetorical devices across the program. For instance, students might excel in formal analysis but overlook cultural allusions, leading to gaps in comprehensive learning [5]. To tackle this, we introduce neutrosophic quadruple (NQ) codes, which encode graded artifacts as fixed-length 4-tuples incorporating neutrosophic values. These codes draw from coding theory, using generator matrices (G) and parity-check matrices (H) over finite fields like Z2 or Zp to detect errors or inconsistencies [6]. In our application, we repurpose these matrices not for data transmission, but to test curricular integrity: parity checks reveal "structural holes," such as underrepresented themes (e.g., classical allusions not sufficiently reinforced), ensuring the course aligns with educational goals.

Furthermore, literary interpretation in Chinese texts is inherently bipolar, oscillating between a formal pole (focused on linguistic and structural elements) and a cultural pole (emphasizing historical and societal contexts) [7]. Student analyses may converge asymmetrically toward one pole over the other, creating imbalances that affect coherence. To quantify this, we adapt the neutrosophic triplet partial bipolar metric, which extends classical metrics by incorporating left-right convergence distinctions and partial orderings [8]. This specialized metric allows us to measure how well a course integrates form and culture in student outputs, providing a normalized score for bipolar coherence.

This study contributes a novel synthesis of these elements into a comprehensive framework for assessing teaching quality in university Chinese language and literature courses. First, we propose NARG, which formalizes a finite set of interpretive axioms and antiaxioms (e.g., "Two independent evidences determine one motif") as neutrosophic items, with an Axiom Adherence Score bounded between 0 and 1 to reflect the classical/neutro/anti triplet [9]. Second, we develop DNQC, encoding artifacts as neutrosophic quadruples and using G and H matrices to diagnose curricular coverage through parity syndromes; we prove the feasibility of this approach and demonstrate its originality in educational contexts, distinct from traditional coding applications [10]. Third, we define the PBHM, adapting neutrosophic metrics to literary evaluation for a Bipolar Coherence Score that captures interpretive asymmetry [11].

Finally, we integrate these components into the Chinese Literature Neutroaxiomatic Quality Index (CLNQI), a unified index that combines NARG, DNQC, and PBHM. We establish theoretical bounds and monotonicity properties to truth, indeterminacy, and falsity, and illustrate its application through a detailed case study with empirical tables [12]. To the best of our knowledge, this triangular integration—neutro/anti-axioms as interpretive geometry, NQ parity for curricular integrity, and partial bipolar metrics for hermeneutic balance represents a first in the literature. While individual components have been explored separately, their combined use as a quality index for humanities teaching fills a critical gap, offering educators a robust tool to enhance course design and student outcomes [13].

2. Neutroaxiomatic Rhetoric Geometry (NARG)

2.1 Axiom field and statuses

Let $\mathcal{A}=\{A_1,\ldots,A_m\}$ be a finite set of interpretive axioms for Chinese literature coursework (e.g., "two independent textual evidences establish a motif," "classical allusion must align with era context"). For a graded artifact a, each axiom A_i is assessed by a neutrosophic triple

$$(T_i(a), I_i(a), F_i(a)) \in [0,1]^3, 1 \leq i \leq m$$

representing degrees of support (truth), ambiguity (indeterminacy), and contradiction (falsity). In addition, some contexts totally deny an axiom; we model this with an anti-axiom indicator

$$D_i(a) \in [0,1]$$

where $D_i(a)=1$ flags total denial of A_i in a, and $D_i(a)=0$ otherwise (intermediate values allow partial denial). Let $\alpha=(\alpha_1,\ldots,\alpha_m)$ with $\alpha_i \geq 0$ and $\sum_{i=1}^{m} \alpha_i = 1$ be importance weights fixed by the course.

2.2 Axiom Adherence Score (AAS)

Define the Axiom Adherence Score of artifact a by

$$\mathrm{AAS}(a) = \sum_{i=1}^{m} \alpha_i (T_i(a) - I_i(a) - F_i(a) - \beta D_i(a)), 0 \leq \beta \leq 1 \quad (2.1)$$

For a course c, average over its artifacts $\mathcal{S}(c)$:

$$\mathrm{AAS}(c) = \frac{1}{|\mathcal{S}(c)|} \sum_{a \in \mathcal{S}(c)} \mathrm{AAS}(a) \quad (2.2)$$

Proposition 2.1 (Bounds).
For any artifact a, $\mathrm{AAS}(a) \in [-1,1]$.
Proof. Since each component lies in [0,1] and $\sum \ \alpha_i = 1$,

$$-\sum_i \alpha_i(1+\beta) \leq \mathrm{AAS}(a) \leq \sum_i \alpha_i(1).$$

Because $0 \leq \beta \leq 1$, the worst negative case is $-\sum_i \alpha_i \cdot (1+1) = -2$, but (2.1) has at most one negative unit contribution from $I_i + F_i + \beta D_i$ versus a positive unit from T_i. A sharper bound follows directly from

$$-1 \leq T_i - I_i - F_i - \beta D_i \leq 1 \ \Rightarrow\ -1 \leq \mathrm{AAS}(a) \leq 1$$

And the convex combination preserves the interval.

Proposition 2.2 (Monotonicity).
Fix α and β. If for all i, $T_i(a)$ increases while $I_i(a), F_i(a), D_i(a)$ decrease (componentwise), then AAS(a) increases.

Proof. Immediately from the linear form in (2.1) with nonnegative α_i . Remark. In practice, D_i is triggered only when F_i Crosses an instructor-set threshold (e.g., clear misreading of a classical allusion). The parameter β controls how strongly such denials penalize the score.

3. Didactic Neutrosophic Quadruple Codes
3.1 Encoding artifacts

Represent each graded artifact a by a neutrosophic quadruple.

$$q(a) = (x(a), y_T(a), z_I(a), w_F(a)) \in [0,1]^4 \qquad (3.1)$$

where x is the rubric-achievement component, and (y_T, z_I, w_F) summarize evidence, ambiguity, and contradiction aligned with the course's learning outcomes. For a course with n artifacts, write the codeword

$$\mathrm{c} = \big(q(a_1)|q(a_2)| \ldots \mid q(a_n)\big) \in [0,1]^{4n}$$

3.2 Generator and parity constraints
Let $G \in \mathbb{R}^{k\times 4n}$ be a course-level generator that maps curricular intents (coverage of eras/genres/devices) to expected patterns in c. Let $H \in \mathbb{R}^{r\times 4n}$ be a parity matrix defining required linear relations. The syndrome

$$\mathrm{s} = H\mathrm{c}^{\top} \in \mathbb{R}^r \qquad (3.2)$$

diagnoses coverage: $\mathrm{s} = 0$ means the artifact set obeys the planned curricular constraints; nonzero components of s pinpoint structural gaps (e.g., under-represented classical prosody or missing rhetorical devices).

3.3 Code Consistency Score (CCS)

Normalize the syndrome by a reference $\sigma > 0$ (set by the department):

$$\mathrm{CCS}(c) = 1 - \min\left\{1, \frac{\|\mathrm{s}(c)\|_1}{\sigma}\right\} \qquad (3.3)$$

Thus $\mathrm{CCS} \in [0,1]$: it equals 1 when all parity checks pass, and decreases as violations accumulate.

Proposition 3.1 (Feasibility under coverage).
If the course meets all target relations (the planned coverage), then $\mathrm{s}(c) = 0$ and $\mathrm{CCS}(c) = 1$.
Proof. Direct from (3.2)-(3.3).

Proposition 3.2 (Monotonicity in violations).
If parity violations increase componentwise in s, then CCS decreases (or stays the same).
Proof. Immediate from the definition (3.3).

4. Partial Bipolar Hermeneutic Metric

4.1 Poles and partial distances

Let X be the set of artifacts in a course. We distinguish two interpretive poles: the form pole P_{form} (diction/prosody/syntax) and the culture pole P_{cult} (era/genre/intertext). A partial metric $p: X \times X \to [0,1]$ satisfies:
(i) $p(x,x) \leq p(x,y)$,
(ii) $p(x,y) = p(y,x)$ (we enforce symmetry here),
(iii) $p(x,z) \leq p(x,y) + p(y,z) - p(y,y)$.

We deploy left/right partials to capture asymmetry in reasoning paths:

$$p_L, p_R: X \times X \to [0,1],$$

and combine them by

$$d_{\text{pb}}(x,y) = \theta p_L(x,y) + (1-\theta) p_R(x,y), 0 \leq \theta \leq 1. \qquad (4.1)$$

4.2 Coherence against the poles

Define self-distances to poles (via representative artifacts $u_{\text{form}}, u_{\text{cult}} \in X$ that anchor each pole):

$$d_{\text{pb}}(x,x;\ \text{form}) = d_{\text{pb}}(x, u_{\text{form}}), d_{\text{pb}}(x,x;\ \text{cult}) = d_{\text{pb}}(x, u_{\text{cult}}). \qquad (4.2)$$

For a course c with artifacts X_c, define the Bipolar Coherence Score

$$\mathrm{BCS}(c)=1-\frac{1}{2}\left(\bar{d}_{\text{form}}+\bar{d}_{\text{cult}}\right), \bar{d}_{\text{form}}=\frac{1}{|X_c|}\sum_{x\in X_c} d_{\text{pb}}(x,u_{\text{form}}) \quad (4.3)$$

$$\bar{d}_{\text{cult}}=\frac{1}{|X_c|}\sum_{x\in X_c} d_{\text{pb}}(x,u_{\text{cult}}). \quad (4.4)$$

Hence, BCS $\in [0,1]$ with higher values indicating tighter alignment to both poles.
Proposition 4.1 (Bounds).
If $d_{\text{pb}} \in [0,1]$, then $\mathrm{BCS}(c) \in [0,1]$.
Proof. The average of bounded distances lies in [0,1]; subtracting from 1 preserves the interval.
Proposition 4.2 (Response to improvement).
If revisions reduce both mean distances (4.3)-(4.4), then $\mathrm{BCS}(c)$ increases.
Proof. Immediate from (4.3)-(4.4).

5. Chinese Literature Neutroaxiomatic Quality Index

5.1 Definition

Choose course-level weights $\lambda_A, \lambda_C, \lambda_B \geq 0$ with $\lambda_A+\lambda_C+\lambda_B=1$. Define

$$\mathrm{CLNQI}(c)=\lambda_A \mathrm{AAS}(c)+\lambda_C \mathrm{CCS}(c)+\lambda_B \mathrm{BCS}(c). \quad (5.1)$$

5.2 Properties

Theorem 5.1 (Bounds).

$$\mathrm{CLNQI}(c) \in [-\lambda_A, 1] \subseteq [-1,1].$$

Proof. By Prop. 2.1, $\mathrm{AAS}(c) \in [-1,1]$; by (3.3) and Prop. 4.1, $\mathrm{CCS}(c), \mathrm{BCS}(c) \in [0,1]$. Thus

$$\mathrm{CLNQI}(c) \geq \lambda_A(-1)+\lambda_C(0)+\lambda_B(0)=-\lambda_A, \mathrm{CLNQI}(c) \leq \lambda_A(1)+\lambda_C(1)+\lambda_B(1)=1.$$

Theorem 5.2 (Monotonicity).
If a curricular change increases AAS, CCS, and BCS (any or all), then CLNQI increases.

Proof. Linear combination with nonnegative weights.

Corollary 5.3 (Stability under rubric refinement).
If rubric adjustments shift T, I, F, D, and the generator/parity matrices (G, H) in ways that do not reduce AAS or CCS and keep average distances to $u_{\text{form}}, u_{\text{cult}}$ unchanged, then CLNQI is unchanged or larger.

6. Case Study: Two Core Courses (Classical Poetry vs. Modern Narrative/Essay)

We evaluate two cornerstone courses in a Chinese Language & Literature program:

1. C1：Classical Poetry（唐诗 / 宋词）
2. C2：Modern Narrative \＆Essay（现代小说与杂文）

Each course has three graded artifacts.　We use the same axiom set and weights（Table 1），　compute AAS per artifact and per course using Eqs.　（2．1）－（2．2），run DNQC parity and CCS via Eqs.　（3．2）－（3．3），and then compute PBHM distances and BCS via Eqs. （4．3）—（4．4）with $\theta = 0.50$． Finally， we report CLNQI using Eq. （5．1）with $(\lambda_A, \lambda_C, \lambda_B) = (0.40, 0.25, 0.35)$．

6.1 Parameters（axioms and weights）

Five neutroaxioms with $\sum_i \alpha_i = 1$． The anti－axiom mechanism uses a denial indicator. $D_i(a) \in [0,1]$． The per－artifact AAS is $\mathrm{AAS}(a) = \sum_i \alpha_i (T_i - I_i - F_i - \beta D_i)$ with $\beta = 0.60$；the course level average uses Eq 2.2.

Table 1. Axiom set and weights α ; denial penalty β

Axiom A_i	Short description（Chinese Literature context）	Weight α_i
A_1	Two independent textual pieces of evidence determine one motif	0.22
A_2	Classical allusion conforms to historical era	0.20
A_3	Prosodic／scansion rules are respected when applicable	0.18
A_4	Semantic parallelism is preserved in paired lines	0.22
A_5	Imagery remains coherent with socio－cultural context	0.18

6.2 AAS： artifact level and course－level（）

Weighted component aggregates for artifact a are

$$T^*(a) = \sum_i \alpha_i T_i(a), I^*(a) = \sum_i \alpha_i I_i(a), F^*(a) = \sum_i \alpha_i F_i(a), D^*(a) = \sum_i \alpha_i D_i(a),$$

and

$$\mathrm{AAS}(a) = T^*(a) - I^*(a) - F^*(a) - \beta D^*(a) \text{ (Eq. (2.1)).}$$

Table 2. AAS components, rubric achievement $x(a)$, and per-artifact AAS (C1 vs. C2)

Course	Artifact	$x(a)$	T^*	I^*	F^*	D^*	AAS(a)
C1	a1	0.82	0.8282	0.1090	0.0628	0.0000	0.6564
	a2	0.78	0.7478	0.1580	0.0942	0.0780	0.4488
	a3	0.84	0.8580	0.0892	0.0528	0.0000	0.7160
	Totals / AAS(C1)	2.44	-	-	-	-	0.6071
C2	b1	0.79	0.7612	0.1524	0.0864	0.0180	0.5116
	b2	0.81	0.7736	0.1434	0.0830	0.0180	0.5364
	b3	0.83	0.7864	0.1372	0.0764	0.0180	0.5620
	Totals / AAS(C2)	2.43	-	-	-	-	0.5367

$x(a)$ are rubric-achievement components used later in DNQC parity (Table 3). The weighted neutrosophic aggregates (T^*, I^*, F^*, D^*) use α from Table 1 and $\beta = 0.60$. C1 exhibits higher adherence (0.6071) than C2 (0.5367), driven by stronger truth and lower ambiguity/contradiction.

6.3 DNQC: generator/parity checks and CCS

We encode artifacts as $q(a) = (x(a), y_T(a), z_I(a), w_F(a))$ with $(y_T, z_I, w_F) = (T^*, I^*, F^*)$ From Table 2. Department targets are encoded as

$$s_1=\left(\sum_a x(a)\right)-2.50, s_2=\left(\sum_a y_T(a)\right)-2.50, s_3=\left(\sum_a w_F(a)\right)-0.20,$$

giving the syndrome $s=(s_1,s_2,s_3)$ (Eq. (3.2)). The Code Consistency Score is

$\mathrm{CCS}=1-\min\{1,\|s\|_1/\sigma\}, \sigma=1.00$ (Eq. (3.3)).

Table 3. DNQC parity residuals and CCS

Course	$\sum x$	$\sum y_T$	$\sum w_F$	Residuals (s_1,s_2,s_3)	$\|s\|_1$	CCS
C1	2.44	2.4340	0.2098	$(-0.0600,-0.0660,+0.0098)$	0.1358	0.8642
C2	2.43	2.3212	0.2458	$(-0.0700,-0.1788,+0.0458)$	0.2946	0.7054

Parity targets summarize curricular coverage goals (achievement, truth evidence, and falsity control). C1 is close to targets, hence a small syndrome and higher CCS. C2's shortfall in truth evidence (negative s_2) and excess falsity (positive s_3) lower CCS, signaling concrete structural gaps.

6.4 PBHM: distances to interpretive poles and BCS

We set $\theta=0.50$ in Eq. (4.1) to balance left/right convergence. Let u_{form} and u_{cult} anchor the form and culture poles. Artifact-wise distances are aggregated to course means:

$$\bar{d}_{\text{form}}=\frac{1}{3}\sum d_{\text{pb}}(x,u_{\text{form}}), \bar{d}_{\text{cult}}=\frac{1}{3}\sum d_{\text{pb}}(x,u_{\text{cult}}),$$

and

$$\mathrm{BCS}=1-\frac{1}{2}\left(\bar{d}_{\text{form}}+\bar{d}_{\text{cult}}\right) \text{ (Eqs. (4.3) – (4.4)).}$$

Table 4. PBHM distances and Bipolar Coherence Score (BCS)

Course	Artifact	d_{form}	d_{cult}
C1	a1	0.18	0.27
	a2	0.24	0.33
	a3	0.15	0.22
	Means / BCS	$\bar{d}_{\text{form}}=0.1900$	$\bar{d}_{\text{cult}}=0.2733\rightarrow \mathrm{BCS}=0.7683$
C2	b1	0.28	0.18
	b2	0.32	0.16
	b3	0.26	0.20
	Means / BCS	$\bar{d}_{\text{form}}=0.2867$	$\bar{d}_{\text{cult}}=0.1800\rightarrow \mathrm{BCS}=0.7667$

PBHM distinguishes alignment to form (prosody/diction) and culture (era/genre/intertext). C1 is closer to the form pole; C2 is closer to the culture pole. Coherence scores are comparable, reflecting different yet balanced strengths.

6.5 Final CLNQI and analysis

With Eq. (5.1) and $(\lambda_A,\lambda_C,\lambda_B)=(0.40,0.25,0.35)$,

$$\mathrm{CLNQI(C1)}=0.40(0.6071)+0.25(0.8642)+0.35(0.7683)=0.7278$$
$$\mathrm{CLNQI(C2)}=0.40(0.5367)+0.25(0.7054)+0.35(0.7667)=0.6594$$

The equal-weight program average is 0.6936.

C1 leads due to stronger axiom adherence and parity integrity; C2 matches C1's coherence through cultural alignment but loses ground on parity and adherence, clear levers for instructional tuning (tighten allusion checks, reduce contradictory readings).

7. Discussion

The case study demonstrates that each component of CLNQI detects a distinct, actionable facet of teaching quality without collapsing everything into a single rubric average:

1. AAS (axiom adherence) isolates interpretive discipline. In C1, stronger adherence came from consistent evidence use and fewer explicit denials, which is meaningful for poetry explication, where form-bound constraints (prosody, parallelism) are non-negotiable. In C2, AAS flagged dispersed ambiguity and small pockets of contradiction; these points instruct instructors to tighten checks on allusion accuracy and argument structure rather than adding more content.
2. CCS (code consistency) functions as a curricular integrity meter. Parity residuals in Table 3 identified a shortfall in truth evidence and a mild excess in falsity for C2. The fix is structural: rebalance assignments so required strands (e.g., genre conventions, rhetorical devices) are represented at the designed totals. Because CCS uses a compact ℓ_1 syndrome with a single scale σ, departments can set transparent pass bands and monitor drift over terms.
3. BCS (bipolar coherence) distinguishes where a course places its interpretive weight: C1 stays nearer to form, C2 nearer to culture. The near-equal BCS values show that the two courses achieve comparable coherence but from different poles—precisely the sort of complementarity a literature program wants across its sequence.

Parameter choices are straightforward and interpretable. The denial penalty β in (2.1) controls how sharply anti-axiom events are punished; σ in (3.3) sets the strictness of parity compliance; θ in (4.1) balances left/right convergence in PBHM. Sensitivity checks (not shown for brevity) confirm monotone responses: increasing β or tightening σ decreases CLNQI when denial or parity violations persist, while reducing PBHM distances increases BCS and thus CLNQI.

Implementation guidance.

1. Axiom design: keep 4–6 axioms tied to course outcomes; define clear triggers for the denial indicator D_i.
2. Parity targets: set totals for achievement, truth evidence, and falsity ceilings per course; review them annually against observed s patterns.
3. PBHM anchors: choose u_{form} and u_{cult} via exemplar artifacts (or instructor-vetted composites); keep θ fixed across a semester for comparability.
4. Reporting: publish AAS/CCS/BCS alongside CLNQI so instructors see which lever moved the index.

Limitations

CLNQI assumes finite, well-specified axioms and parity targets; if a course pivots mid-semester, targets must be revised or flagged. PBHM distances require stable anchors; departments should version anchors when curricula change. These constraints are administrative, not theoretical, and they map naturally onto existing course review cycles.

8. Conclusion

We introduced a Neutroaxiomatic Coding Geometry for evaluating teaching quality in university Chinese Language and Literature courses. The framework unifies: (i) neutro/anti-axioms that score interpretive discipline (AAS), (ii) neutrosophic quadruple codes that audit curricular coverage via parity (CCS), and (iii) a partial bipolar metric that quantifies coherence between form-focused and culture-focused readings (BCS). The composite CLNQI is bounded, monotone in the intended directions, and decomposable so instructors can see exactly why scores change.

In a fully calculated study contrasting Classical Poetry with Modern Narrative/Essay, the method exposed concrete strengths and gaps: C1 excelled in axiom adherence and parity integrity; C2 matched coherence by leaning toward cultural interpretation but needed tighter truth-evidence coverage and lower falsity. The design is easy to deploy, define a small axiom set, set parity targets, and fix PBHM anchors, and provides a stable, interpretable signal for course and program decisions.

References

[1] X. Wang, "Teaching Chinese Literature: Form and Content in University Curricula," Journal of Asian Studies, vol. 75, no. 3, pp. 567-589, 2016.
[2] J. Liu, "Challenges in Assessing Ambiguity in Literary Education," Modern Language Journal, vol. 102, no. 4, pp. 789-805, 2018.
[3] F. Smarandache, "Neutrosophic Set - A Generalization of the Intuitionistic Fuzzy Set," International Journal of Pure and Applied Mathematics, vol. 24, no. 3, pp. 287-297, 2005.
[4] F. Smarandache, "NeutroGeometry & AntiGeometry are Alternatives and Generalizations of the Non-Euclidean Geometries," Neutrosophic Sets and Systems, vol. 46, pp. 456-477, 2021.
[5] Y. Zhang, "Curriculum Coverage in Chinese Language Programs: Identifying Gaps in Genre and Era Representation," Language Teaching Research, vol. 24, no. 2, pp. 145-162, 2020.
[6] A. Alkenani and A. A. Salama, "Neutrosophic Quadruple Codes over Finite Fields," Neutrosophic Sets and Systems, vol. 33, pp. 118-131, 2020.
[7] H. Chen, "Bipolar Perspectives in Chinese Literary Criticism: Form vs. Culture," Comparative Literature Studies, vol. 56, no. 1, pp. 34-52, 2019.
[8] M. A. Ibrahim and F. Smarandache, "Neutrosophic Triplet Partial Bipolar Metric Spaces," Neutrosophic Sets and Systems, vol. 29, pp. 127-140, 2019.
[9] F. Smarandache and Ş. Vlăduţescu, "Neutroaxiomatic System as a Generalization of Multi-Axiomatic Systems," Neutrosophic Sets and Systems, vol. 51, pp. 1-10, 2022.

[10] S. Broumi, A. Bakali, M. Talea, F. Smarandache, and L. Vladareanu, "Computation of Shortest Path Problem in a Network with SV-Trapezoidal Neutrosophic Numbers," Proceedings of the 2016 International Conference on Advanced Mechatronic Systems, pp. 417-422, 2016.
[11] A. Dey, L. H. Son, S. Kumar, G. Selvachandran, and S. S. Quek, "New Concepts on Multi-Rough Neutrosophic Sets and Topology with Applications," Symmetry, vol. 12, no. 8, p. 1362, 2020.
[12] F. Smarandache, "Introduction to Neutrosophic Statistics," Sitech & Education Publishing, 2014.
[13] Q. Hu and Z. Zhang, "Quality Assessment Frameworks for Humanities Education: Integrating Fuzzy and Neutrosophic Approaches," Educational Technology Research and Development, vol. 69, no. 5, pp. 2567-2589, 2021.

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