



Bridging Piagetian Constructivism and NEP 2020: A framework for English language pedagogy in Indian Secondary Classrooms

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Abstract

The NEP 2020 represents a paradigm shift from the old rigid and examination-oriented approach of education in India to a flexible, competency-based approach. In this article, a pedagogical model is presented that is aligned with the principles of Scopus and based on the cognitive constructivist approach of Jean Piaget for teaching ELT in secondary level according to the requirement of NEP 2020. With the study of the cognitive dynamics (assimilation, accommodation, and equilibration), this paper seeks to systematically transform science education into language acquisition using active learning models in the form of Process Oriented Guided Inquiry Learning (POGIL) model and 5Es Instructional Framework. This approach replaces mechanical rote learning with a learning environment that treats the English language as a laboratory for language investigation, conceptualization and application. It presents the theoretical synthesis, the redefined roles of students and teachers in EFL, an English language learning cycle blueprint, and then discusses structural strategies in order to reduce the socio-emotional and gender disparity in language achievement.

Keywords: Piagetian constructivism, NEP 2020, english language pedagogy, POGIL, 5ES model, competency-based education.

Introduction

The National Education Policy (NEP) 2020 is an important shift in the education system of India, moving it away from rote learning to a system focused on higher-order thinking skills, creativity, and language proficiency. This policy is grounded in a philosophy of education that emphasizes students' needs and experiences in language acquisition and learning, and that values multilingualism. The English language education in Indian classrooms has been based on the traditional grammar-translation approach and the structural lecture method for generations. Such traditional approaches demean students, who become mere memorising machines for vocabulary and formal rules, but do not acquire functional communicative competence. Pedagogy should be based on the understanding of the individuals' construction of knowledge to ensure that language teaching is linked to the benchmark of NEP 2020. According to Jean Piaget's cognitive constructivist theory, learners construct their own mental representations (schemata) through their experiences, organisation and reflection on what is happening in their environment. Although constructivist approaches such as Process Oriented Guided Inquiry Learning (POGIL) and the 5Es instructional model (Engage, Explore, Explain, Elaborate, Evaluate) are more commonly found in science and mathematics classrooms, they can equally be adapted to be effective in language learning. This article proposes a pedagogical model, based on Piagetian constructivist concepts, which can be implemented in secondary education in the context of NEP 2020, and is suitable for usage in Scopus. It offers a structural framework

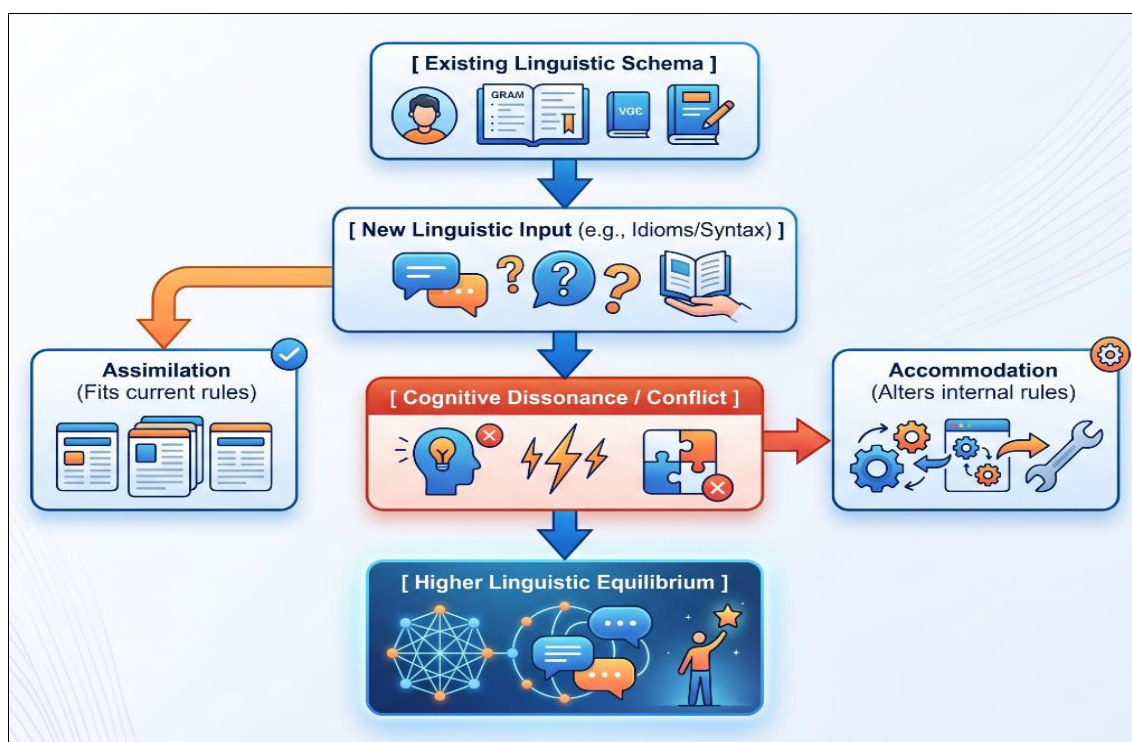
for moving the learning of language from a passive to an active learning process, a process of discovery, and self-regulated competency.

Theoretical Framework: Synthesizing Piagetian Constructivism and NEP 2020

1. Piagetian Cognitive Dynamics in Language Acquisition

Piaget's theory of cognitive constructivism states that intellectual development is driven by a continuous cycle of balance and adaptation. This cycle depends on three major cognitive mechanisms:

- **Assimilation:** The way that a student makes sense of new language data based on his/her pre-existing schema. For example, a learner who knows the simple present tense might attempt to understand a complex sentence in terms of the present tense.
- **Accommodation:** A change in the structure of internal schemata as a result of conflicting prior conceptions with new experiences. Cognitive conflict in language learning takes place when a learner discovers that his/her existing vocabulary or grammar constructions are unable to convey an idea. This requires them to change and expand their language cognitive structure.
- **Equilibration:** Cognitive force that comes from within the learner and solves internal conflict and changes the learner from assimilation to accommodation. This process will help to achieve a higher state of linguistic equilibrium and enhance conceptual understanding.



2. Alignment with NEP 2020 Language Directives

NEP 2020 calls for a Competence Based Curriculum (CBC) which is assessed on the basis of functioning, not accumulation. For language learning, it is about focusing on practical matters, such as writing or speaking, rather than on the memorization of abstract grammar. This is rooted in constructivist theory, as championed by Piaget, where the use of language is seen as something that can be used to model cognition and to solve social problems. The guided inquiry and discovery approach allows students to acquire a mature control of English syntax, semantics and pragmatics in a conceptual way.

Pedagogical Adaptations: From Science Models to Linguistic Inquiries

1. The Linguistic POGIL Engine

The Process Oriented Guided Inquiry Learning (POGIL) activity was originally designed to integrate guided inquiry and cooperative learning in a STEM classroom. POGIL for English language learning will turn a traditional lecture-

based classroom into a process-based English language learning environment.

The instructor does not have to explicitly teach grammatical rules, but instead includes models in the text that include specific language forms (e.g., different voice forms such as active versus passive voice, different tones, or different points of view within a narrative). Students use these models in self-managed teams to answer critical thinking questions, to learn self-discovery of underlying structural rules and to solve creative writing tasks.

Empirical research has demonstrated that POGIL enhances self-regulated learning skills, metacognitive awareness and process skills such as collaborative communication, critical analysis, and teamwork.

2. The Language Arts 5Es Framework

The 5Es instructional model provides an effective path for guiding students through the process of linguistic discovery and concept development.

Stage	STEM Manifestation	English Language Pedagogy Adaptation
Engage	Prompting cognitive conflict with a physical anomaly or phenomenon.	Presenting a controversial text, enigmatic riddle, or short audio clip featuring unfamiliar contextual syntax.
Explore	Designing experiments and collecting data to test a hypothesis.	Guided reading of diverse texts to deduce semantic patterns and structural nuances without explicit lecturing.
Explain	Formulating definitions and conceptual terms based on data.	Student-led presentations explaining text structures, tone, and grammatical choices, followed by formative teacher feedback.
Elaborate	Transferring a concept to a completely new scientific scenario.	Producing creative texts, engaging in structured debates, or performing role-plays using the newly acquired language competencies.
Evaluate	Completing summative tests and analyzing data accuracy.	Conducting peer reviews, managing reflective writing portfolios, and using performance diagnostics for self-regulated correction.

Operational Architecture: Structural Roles in the Constructivist Classroom

1. The Metacognitive Instructor

In a constructivist English classroom that aligns with the

goals of NEP 2020, the instructor steps away from the traditional role of a lecturer who delivers explicit knowledge. Instead, the teacher serves as a cognitive architect, facilitator, and process monitor.



The teacher's focus centers on designing collaborative learning environments, introducing targeted scaffolding questions, identifying underlying student errors, and giving regular formative feedback.

2. The Interdependent Cooperative Group

The classrooms are structured into small, cooperative groups of four to five students for the greatest amount of student interaction and language use. In each group there are specific roles, each person is responsible to do and is engaged

The Manager: keeps a group on language task; manages time and ensures equal participation. The Spokesperson: Represents the group and shares the group's final ideas or product orally or in writing with the class.

The Recorder: Notes the group's textual analysis, argument, and initial drafting.

Strategy Analyst: Records the group's learning strategies; makes observations about what good communication looks like; recommends for improvement.

Instructional Blueprint: A Piagetian English Lesson Plan

Topic: Mastering Persuasive Writing and Rhetorical Strategies

- **Grade Level:** Secondary Education (Grade 9/10, under NEP 2020 guidelines)
- **Duration:** 2 Sessions (45 minutes each)
- **Objective:** Students will independently discover, analyze, and use rhetorical appeals (Ethos, Pathos, Logos) to write persuasive texts, moving away from simple rote style imitation.

Phase 1: Orientation and Engagement (15 Minutes)

- **Instructor Behavior:** Displays two contrasting letters appealing for environmental protection. Letter A relies entirely on direct, literal facts. Letter B uses personal stories, emotional language, and authoritative quotes to make its point. The teacher asks: *"Why does Letter B convince you, while Letter A just gives you information?"*

- **Student Behavior:** Students read both pieces, note their personal reactions, and discuss their initial ideas within their cooperative teams. This activity creates cognitive conflict by showing that presenting facts alone is often not enough to change public opinion.

Phase 2: Structural Exploration and Data Analysis (25 Minutes)

- **Instructor Behavior:** Distributes a curated set of three short persuasive speeches to each group. The text is not pre-labeled with rhetorical terms. The teacher provides an analysis worksheet with guided, step-by-step questions.
- **Student Behavior:** The team analyzes the sample speeches together. They highlight emotionally moving sentences, circle references to expert data, and underline places where the speaker builds personal credibility.

Critical Thinking Scaffolding Questions

1. Look closely at the underlined sections of Speech 1. How does the speaker prove they are trustworthy before delivering their main argument?
2. In Speech 2, what specific emotions do the circled words make you feel? How does this emotional connection help advance the speaker's purpose?
3. If you removed the statistical data from Speech 3, would the argument still hold up logically? Why or why not?

Phase 3: Concept Discovery and Invention (20 Minutes)

- **Instructor Behavior:** Monitors group discussions, listening for patterns in how students analyze the texts. Once the teams recognize the three core types of persuasion, the instructor connects their findings to the formal rhetorical terms: Ethos (credibility), Pathos (emotion), and Logos (logic).
- **Student Behavior:** The Spokesperson from each group explains how their team categorized the persuasive techniques. Students synthesize these observations to build their own functional definitions of persuasive writing.

Phase 4: Linguistic Application and Creative Writing (20 Minutes)

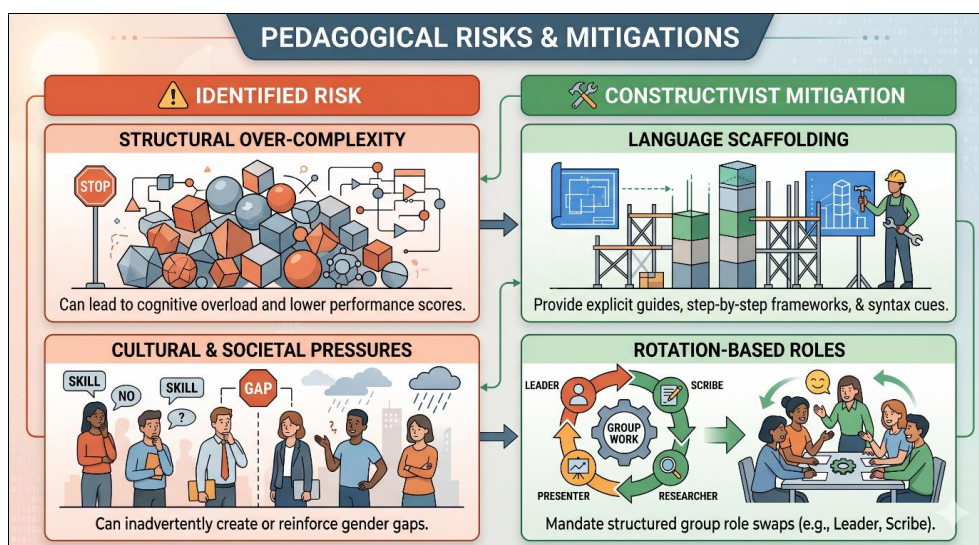
- **Instructor Behavior:** Introduces a realistic, real-world writing prompt. "Write a short pitch to your school board requesting funding for a new student-run community garden."
- **Student Behavior:** Working collaboratively, students write a brief persuasive proposal. They must intentionally include all three discovered rhetorical strategies, ensuring their choices fit the specific audience and context.

Phase 5: Formative Evaluation and Metacognitive Review (10 Minutes)

- **Instructor Behavior:** Guides a self-regulated evaluation session across the classroom.
- **Student Behavior:** Teams exchange their pitches for a structured peer review based on a rubric. Every student then completes a self-assessment sheet, reflecting on how their writing skills have grown and identifying areas where they can continue to improve.

Addressing Socio-Educational Dynamics and Gender Disparities

Empirical assessments of advanced student-centered strategies, such as POGIL and guided discovery, reveal complex patterns regarding student performance and gender outcomes.



Some studies show that when guided discovery models are introduced without adequate structure, they can cause a drop in test performance compared to traditional lecture methods. This occurs because open-ended problem-solving can occasionally create confusion if students do not receive sufficient scaffolding^[4, 6].

Furthermore, data indicates that unstructured interactive methods can inadvertently widen gender performance gaps, with male students sometimes making larger gains than female peers due to underlying social and cultural differences in confidence.

To mitigate these challenges and fulfill the inclusive vision of NEP 2020, constructivist language classrooms must implement targeted structural safeguards

- **Explicit Language Scaffolding:** Teachers must provide clear graphic organizers and sentence starters during the exploration phase to prevent confusion and keep students on track.
- **Mandatory Role Rotation:** Group roles (Manager, Recorder, Spokesperson) must be systematically rotated to prevent any single student from dominating discussions, ensuring every learner builds equal communication confidence^[1, 2].
- **Gender-Responsive Prompts:** Writing and speaking tasks must be carefully designed to reflect diverse perspectives, ensuring that learning materials appeal to and support all students equally^[5, 6].

Implications of the Study

The pedagogical approach that integrates Piagetian constructivism and the framework of the National Education Policy (NEP) 2020 contains some implications in English language pedagogy in secondary classrooms of India:

a) Pedagogical & Curricular Redesign

The English language classroom has been restructured to become an active laboratory for conceptual discovery, thereby directly addressing the thrust of NEP 2020 to move away from examination-driven, mechanical memorization of content to communicative competence.

- **Structured Active Learning Model is not limited to STEM subjects:** This study shows that this structured active learning model can be applied in other subjects, such as the 5Es Instructional Framework. They can be successfully transferred to the language arts to construct a self-regulated learning and metacognitive awareness in a systematic way.
- **Active Language Learning for Grammar:** Explicit learning of grammatical structures is replaced by independent discovery of syntax, semantics and pragmatics through the analysis of a carefully selected collection of linguistic texts.

b) Institutional and Classroom Management

- **Redefinition of the Educator's Role:** The traditional identity of the teacher as an explicit lecturer or

authority figure is replaced by that of a "Metacognitive Instructor." Teachers must be upskilled to act as cognitive architects, process monitors, and facilitators who use targeted scaffolding questions rather than absolute dictation.

- **Structured Collaborative Architecture:** Implementing small, self-managed cooperative learning teams with assigned, mandatory group roles (Manager, Spokesperson, Recorder, Strategy Analyst) instills personal accountability. This structure maximizes peer interaction and builds critical process skills like collaborative communication and teamwork.

c) Socio-Educational and Gender Equity

- **Mitigation of Performance Gaps:** By highlighting that unstructured interactive models can inadvertently widen gender performance gaps or drop overall test performance due to student confusion, this framework advocates for vital, structured safeguards.

Institutionalizing Structural Safeguards: To ensure true classroom inclusivity as envisioned by NEP 2020, the study implies that schools must actively enforce

- **Explicit Language Scaffolding:** Utilizing graphic organizers and sentence starters to prevent open-ended cognitive overload.
- **Mandatory Role Rotation:** Systematically shifting group responsibilities to prevent dominant students from controlling discussions, ensuring equal confidence-building among all genders and socio-educational backgrounds.
- **Gender-Responsive Prompts:** Designing writing and speaking tasks that reflect diverse perspectives to support all learners equitably.

d) Policy Implementation & Future Research

- **Blueprint for NEP 2020 Operationalization:** The study provides a scalable, operational roadmap for educational boards and policymakers looking to execute the abstract progressive ideas of NEP 2020 within localized, daily secondary lesson plans.
- **Expanding Empirical Scope:** This framework opens pathways for future empirical research to measure the quantitative impacts of linguistic POGIL engines on language achievement, helping to generate localized data across diverse linguistic regions in India.

Conclusion

Integrating Jean Piaget's cognitive constructivist theory with the educational directives of NEP 2020 provides a clear path forward for reforming English language teaching in India. By adapting active learning engines like POGIL and the 5Es model for the language arts, educators can transform classrooms into collaborative environments driven by inquiry and student engagement.

This approach shifts language learning away from mechanical memorization, encouraging students to actively discover syntax patterns, negotiate meaning, and take control of their own linguistic growth.

Implementing this model successfully requires an ongoing commitment to professional development, the creation of adaptive learning resources, and careful attention to

inclusive group dynamics. By embracing these structural changes, the academic community can ensure that English language education serves its true purpose: building critical thinking, genuine communication skills, and lifelong learning competencies.

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