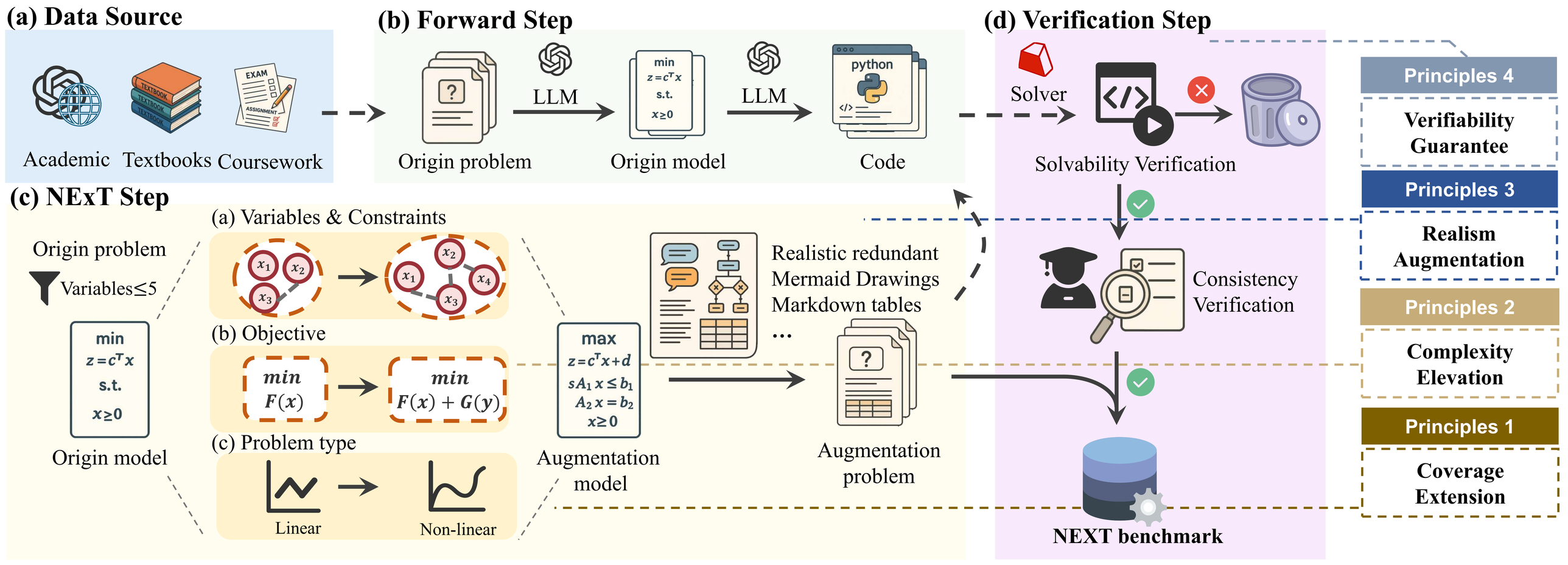
(a) Data Source
Academic
Textbooks
Coursework
(b) Forward Step
Origin problem
LLM
min
z=c^Tx
s.t.
x≥0
Origin model
LLM
python
Code
(d) Verification Step
Solver
Solvability Verification
Consistency Verification
NEXT benchmark
(c) NExT Step
Origin problem
Variables≤5
min
z=c^Tx
s.t.
x≥0
Origin model
(a) Variables & Constraints
(b) Objective
min F(x)
min F(x)+G(y)
(c) Problem type
Linear
Non-linear
max
z=c^Tx+d
sA1x≤b1
A2x=b2
x≥0
Augmentation model
Realistic redundant
Mermaid Drawings
Markdown tables
...
Augmentation problem
Principles 4
Verifiability Guarantee
Principles 3
Realism Augmentation
Principles 2
Complexity Elevation
Principles 1
Coverage Extension