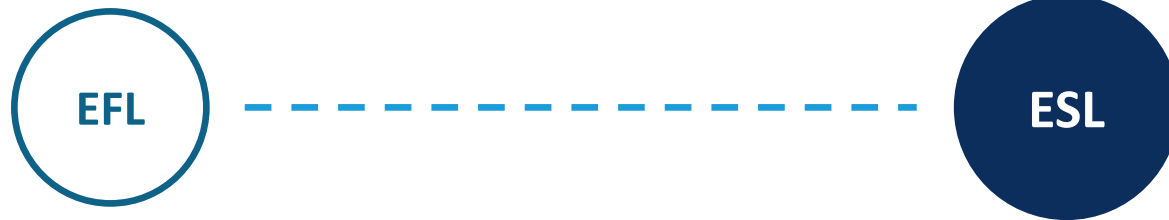


AI-Driven Self-Directed Language Learning

Strategy Use and Gender Perspectives among Vietnamese EFL Undergraduates



Where does AI sit in this transition?

Huynh Thanh Trung

Chau Thi Kim Ngan

Vo Thi Tien • Tran Quoc Thao

HUTECH University, Ho Chi Minh City

Vietnam is moving toward ESL. Are learners?

Policy and the labour market increasingly position English as a language for study, work, and global participation — an ongoing reorientation toward ESL, not a completed shift.

For the individual learner, that shift means moving from compliance with classroom routines

→ **autonomous, lifelong engagement**

Much of that engagement now happens outside class — with AI.

Since 2022, generative AI has moved from the periphery to the mainstream of undergraduate study. Yet evidence on how Vietnamese students actually put these tools to work in their own learning remains limited.

IN THIS SAMPLE

100%

owned a personal learning device

88.5%

used ChatGPT

50.0%

used AI for writing “often/always”

Three gaps in the evidence base

Vietnamese research on AI in EFL has grown quickly since 2023 — but unevenly.

1

Empirical

No study maps the full four-strategy AI-SDLLS profile. Strategy use is folded into broad perception categories.

2

Contextual

The evidence draws overwhelmingly on four-year university samples. Vocational-college learners are largely undocumented.

3

Methodological

Gender and strategy patterns are rarely examined with converging quantitative and qualitative evidence.

This study addresses all three together — in a setting rarely visible in the international literature.

Research questions

1

What AI-driven self-directed language learning strategies (AI-SDLLS) do Vietnamese EFL students use?

2

What are gender differences in using AI-SDLLS in self-directed language learning?

Equity framing: if male and female students draw on AI in systematically different ways, generic guidance will quietly leave some students under-served.

AI-SDLLS: familiar strategies, re-mediated by AI

Oxford (2016) four strategy families × Knowles (1975) self-directed learning. AI extends each category rather than replacing it.

- 1 Cognitive** Translation, grammar checking, summarising, vocabulary practice — immediate, low-cost feedback.
- 2 Metacognitive** Goal-setting, planning, self-monitoring, reflection — demands deliberate learner initiative.
- 3 Affective** Low-stakes, non-judgemental practice that eases anxiety — while risking over-reliance.
- 4 Social** AI as interactional partner, or as a rehearsal space for human contact.

This frame dominates Vietnamese EFL research and yields categories that hold up across studies.

Convergent mixed-methods design

Creswell & Plano Clark (2018). Both strands collected concurrently, analysed separately, merged at interpretation.

QUANTITATIVE

N = 52

- 43-item questionnaire, 5-point Likert
- 4 subscales: cognitive 9 · metacog 7 · affective 6 · social 7
- Cronbach's α = .84–.85 across all four
- SPSS 31: descriptives, independent-samples t-tests

QUALITATIVE

n = 16

- 20-question semi-structured protocol
- Purposive, gender-balanced (7 male / 9 female)
- Written, asynchronous via Google Forms
- Braun & Clarke (2006) thematic analysis

Merged at interpretation

Interview accounts were read against each subscale to judge whether they confirmed the survey pattern, explained it, or complicated it.

Why vocational learners?

A vocational institution in Ho Chi Minh City — a setting rarely visible in the published record.

53.8%

male
44.2% female, 1.9% other

51.9%

aged 18–19
26.9% aged 20–21

50.0%

second-year students
38.5% first-year

38.5%

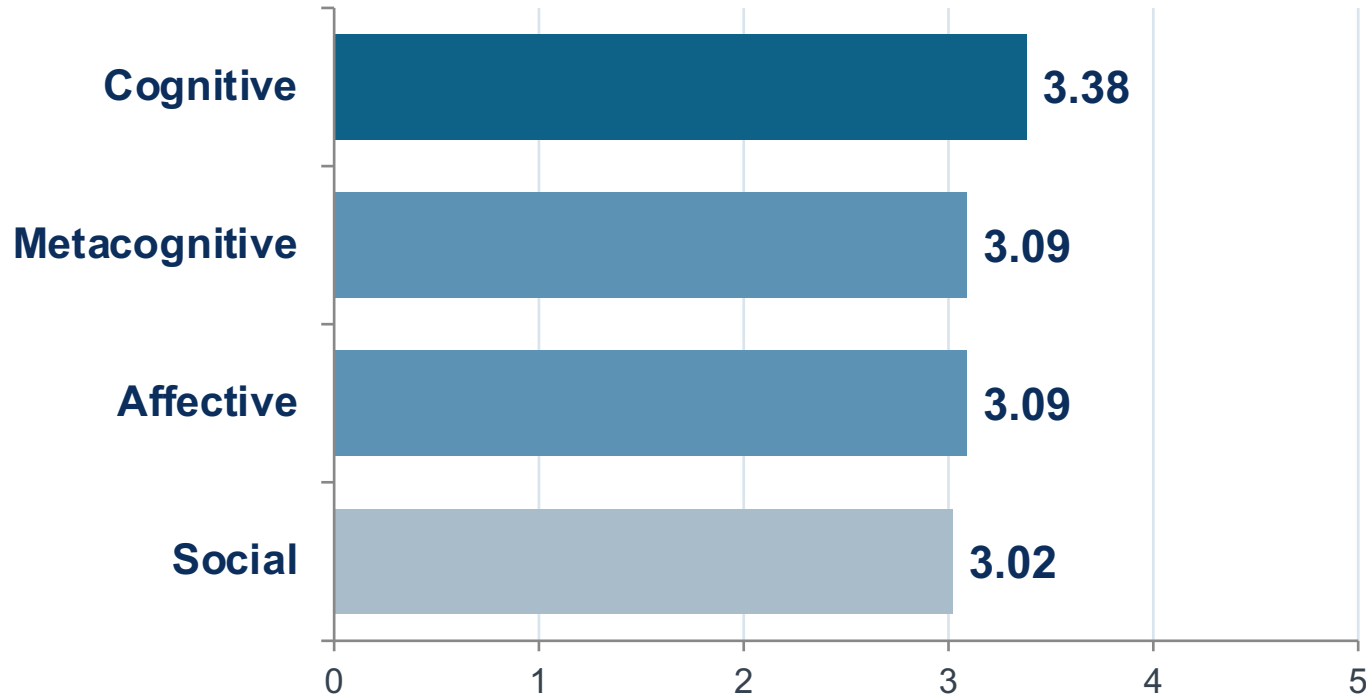
studied English
5 years or longer

Relative to the four-year university students who dominate the Vietnamese evidence base, vocational learners:

- more often combine study with paid work
- enter with more uneven English proficiency (A2–B1)
- depend on more variable digital access — conditions that shape both how readily they turn to AI and which strategies they can sustain

The strategy hierarchy

Overall use was moderate (M = 3.15). One gap dominates the picture.

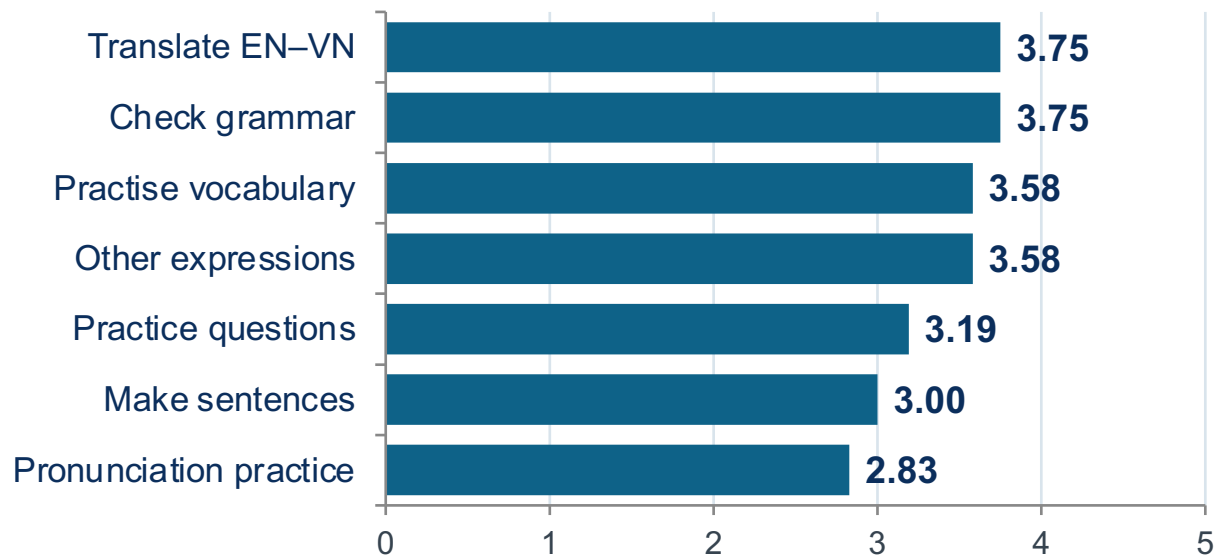


Scale: 1 = Never, 5 = Always. N = 52.

HOW TO READ THIS

- Cognitive use outweighs the rest. That gap is the finding.
- Metacognitive, affective, and social differ by no more than 0.07 — treat them as one band.
- No inferential test was run across the four means. This is a descriptive tendency, not an established hierarchy.

Cognitive strategies: speed, clarity, and output



All 9 cognitive items, N = 52.

INTERNAL COMPARISON

Translating and grammar checking (3.75) versus pronunciation practice (2.83).

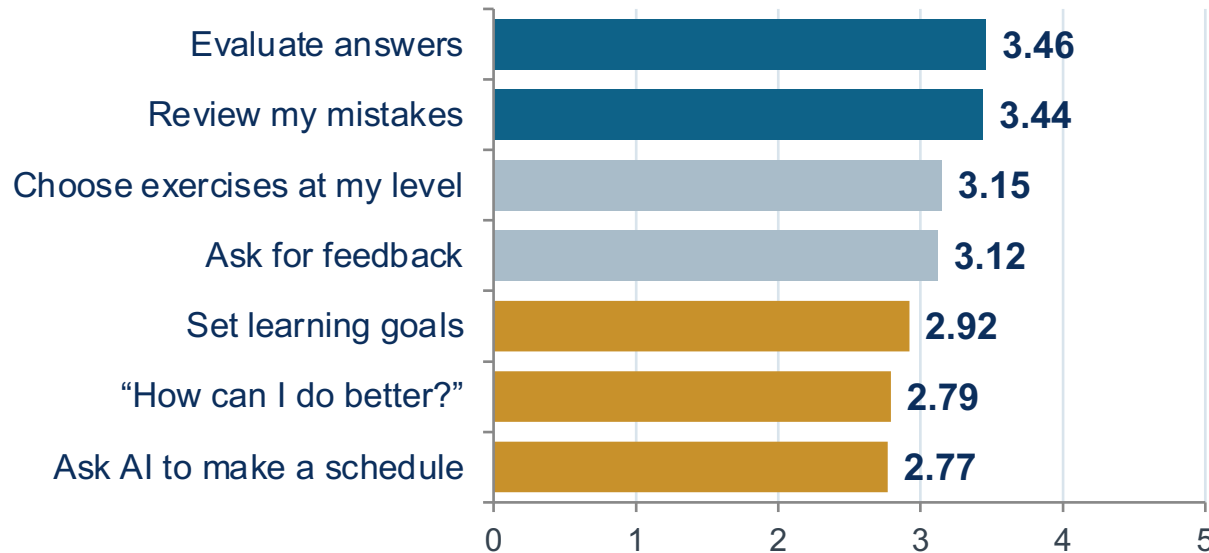
EFFECT

Faster reading, clearer understanding, instant error correction — text-based tasks only.

STUDENT INSIGHT

“To be honest, I am really bad at writing and grammar, so I often use AI tools to practice them.” — S1

Metacognitive: diagnosis without planning



All 7 metacognitive items, N = 52. Blue = looking back · Gold = looking ahead.

INTERNAL COMPARISON

Reactive evaluation (3.46) versus proactive planning (2.77).

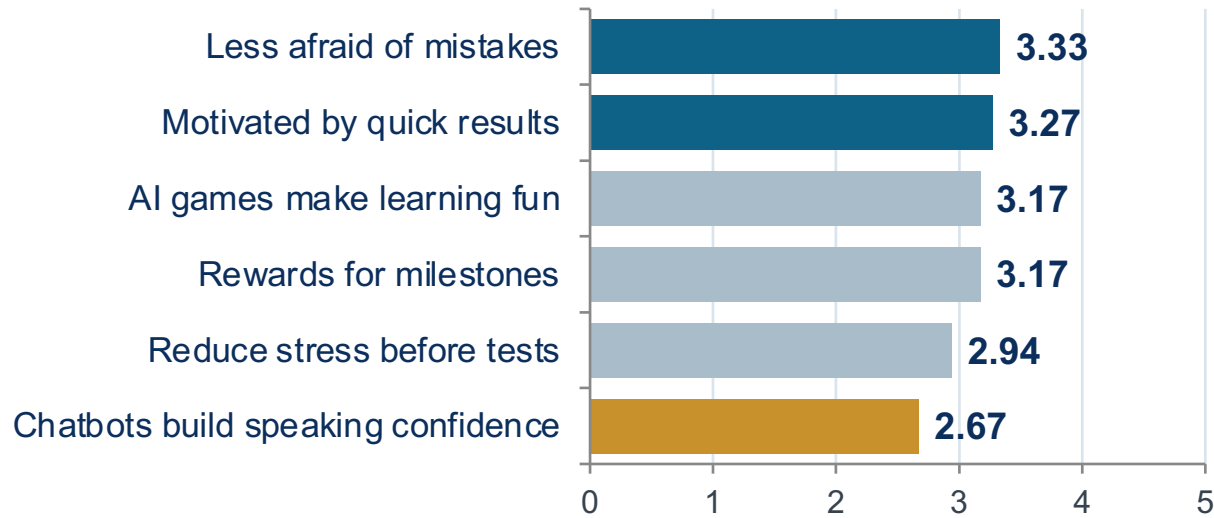
EFFECT

Students diagnose and evaluate finished work readily. Disciplined forward planning does not follow.

"I'll ask for a sample test and AI will check it and explain what my problems are and what I need to improve." — S2

"I make plans for using AI, but I cannot always follow them."
— **the rule, not the exception**

Affective: a safety net, with a catch



All 6 affective items, N = 52.

INTERNAL COMPARISON

Reducing fear of mistakes (3.33) versus building conversational confidence (2.67).

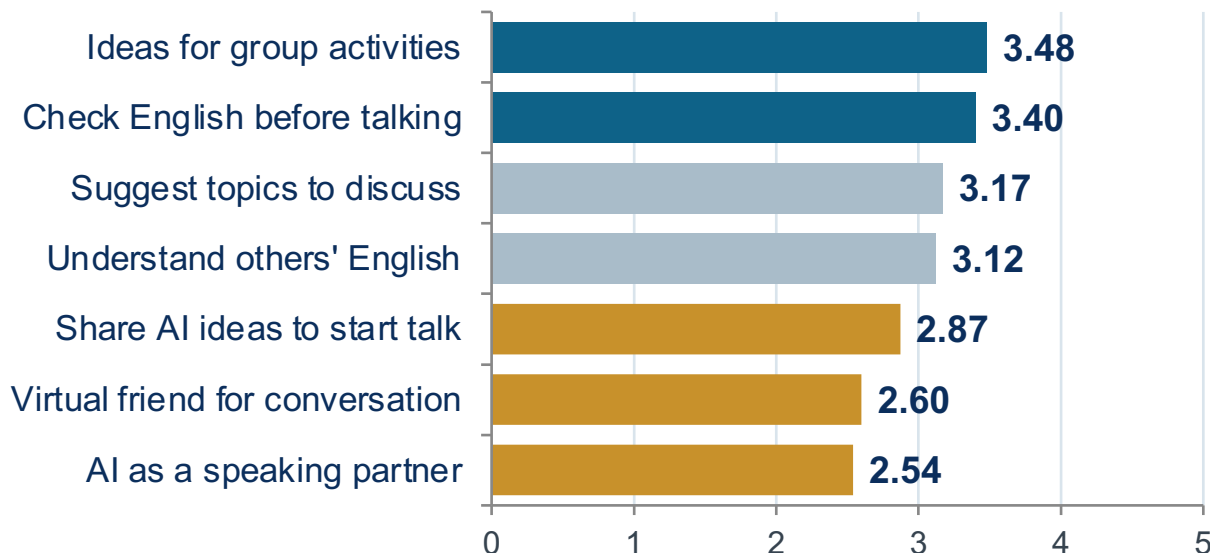
EFFECT

Anxiety drops. But the same students describe boredom and dependence — the benefit is real and ambivalent.

“It's just an AI, not a real human, so I'm not afraid to be judged if I have a mistake.” — S13

“Sometimes I feel really bored because myself depend on AI.” — S2

Social: brainstorming, not conversation



All 7 social items, N = 52. Blue = preparing for people · Gold = replacing people.

INTERNAL COMPARISON

Prep for group work (3.48) versus AI as a virtual friend (2.54) — the lowest item in the study.

EFFECT

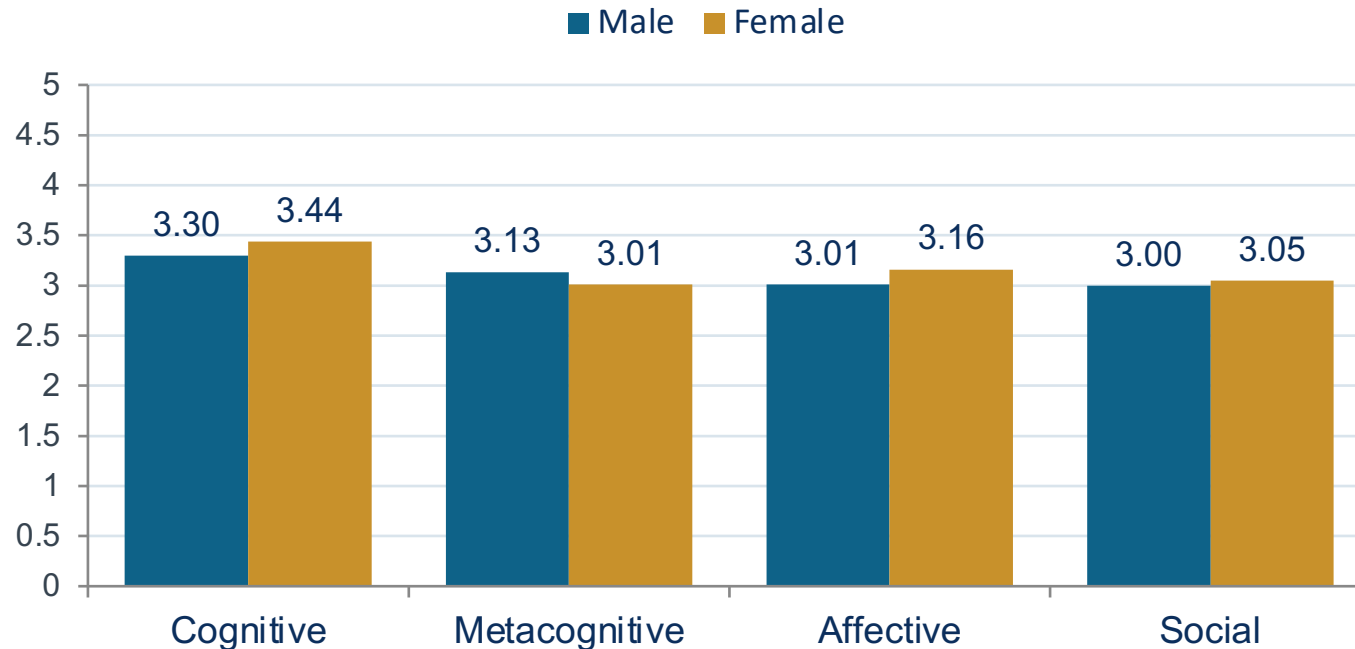
Students use AI to prepare for human interaction — and then go and talk to humans.

“I ask AI for the main points, then I widen ideas from them.”
— **S13**

“A good partner for speaking practice is a classmate, because real people will be better than AI.” — **S3**

Gender: no sizable differences detected

Independent-samples t-tests, $n = 51$ (28 male, 23 female). Levene's $p > .05$ throughout.



All $p \geq .53$ · $d = -.18$ to $.13$ (negligible to small)

READ THIS AS

- Absence of evidence for sizable differences — not evidence of their absence. At $n = 51$ the tests were underpowered for small effects.
- The interviews were not designed to elicit gendered accounts, so their convergence is consistent with the survey, not independent confirmation.

Context appears to matter more than demographics: proficiency, digital literacy, time pressure, and tool access.

The core risk: stalling at the cognitive layer

THE TRAP

AI becomes a pair of task hands rather than a partner in extended, autonomous learning. Cognitive use is the most accessible entry point — and the easiest place to stop.

THE CAUSE

Where instruction prizes accuracy and teacher direction over self-regulation, students reach AI-mediated SDL with few planning habits already in place.

THE AFFECTIVE REALITY

Vocational students juggling paid work have little time for deliberate practice, which makes passive dependence on AI the path of least resistance.

What the pattern is consistent with

Use weighted toward task-level cognitive support, and lighter on planning, self-regulation, and interaction, is consistent with a task-oriented use of AI rather than the autonomous, communicative use an ESL orientation implies.

A caveat we hold to: the study measured strategic AI use, not learners' identity as EFL or ESL learners. The link to the transition is interpretive, not demonstrated.

The social deficit, and what actually drives it

THE SOCIAL GAP

Learners called chatbot exchanges robotic. Free-tier tools rarely offer good voice interaction, and low oral proficiency makes AI dialogue hard to sustain.

GENDER VERSUS CONTEXT

Time pressure, proficiency, and digital access appear to drive AI use more directly than gender — and they cut across it.

THE ESL URGENCY

Authentic spoken interaction sits at the centre of an ESL-oriented system. Of the three underdeveloped layers, this gap is the most pedagogically urgent.

The through-line

Students already reach for AI fluently and daily. What they do not do is plan with it, monitor with it, or talk with it. Supporting an ESL-oriented shift therefore requires deliberate scaffolding of the underdeveloped layers — not access to more powerful tools.

Two moves for the classroom

1

Targeted strategy instruction

Cognitive use is already established. Spend class time on what is not.

ACTIONABLE ROUTINES

- Set a weekly AI-use goal
- Log the prompts that worked
- Compare AI suggestions with peer feedback

Goal: make AI a visible object of metacognitive learning, not a hidden out-of-class crutch.

2

Designed hybrid social practice

Chatbot talk feels robotic to learners. Scaffold human–AI hybrids instead.

EXAMPLES

- Peer dialogue informed by AI preparation
- Role-plays mixing human and AI interlocutors
- Small-group review of AI transcripts

Result: keeps the human relational dimension learners value, while using AI's linguistic affordances.

Teacher preparation, and the equity question

3

Move beyond policing AI

Students already access AI for cognitive support. Teacher development should target higher-order use: designing reflective prompts, judging the accuracy and usefulness of AI feedback, comparing AI output with peer and teacher feedback, using AI ethically, and recognising over-reliance. Teachers need to model AI literacy, not merely police it.

THE EQUITY QUESTION

Universal device ownership is not equal AI access.

Every student in this sample owned a device. But free-tier tools, premium features such as advanced voice interaction, and — critically for working vocational students — stable time to practise are not evenly distributed. Equitable AI integration means attending to which learners can realistically reach the interactive features an ESL-oriented use of AI depends on.

Access is not the problem. Strategy is.

Vietnamese vocational EFL learners already reach for AI — fluently, and every day. They reach for it to finish the task. Unless we teach the planning, the monitoring, and the talking, the move toward English as a second language risks being stratified by digital access rather than made inclusive by it.

SUMMARY

Cognitive strategies dominate. Metacognitive, affective, and social use require explicit teaching. No sizable gender differences detected.

LIMITATIONS

Single vocational college, convenience and volunteer sampling, N = 52 with limited power, self-report only, asynchronous interviews.

NEXT

Intervention studies testing short strategy instruction; larger stratified samples; longitudinal tracking across a semester.

Thank you. Questions welcome.

Huynh Thanh Trung · Chau Thi Kim Ngan · HUTECH University