Coding scheme: Educator interview

Six main themes, 18 second-level thems, 36 third-level thems, and 12 fourth-level sub-codes

Name	Description
Feedback Impact & interaction tracking	The current practice of tracking the impact and interaction of feedback, as well as the data that educators want to have in order to better understand them.
Desirable data	Data that educators want to have in order to better understand students' interactions with feedback and feedback impact.
Interaction with the feedback	e.g., read? understood? what actions have been taken? need support? how do they feel?
Offline activities	Time is taken for learning, reading, doing assignments, etc.
Student background information	e.g., language level, cultural nuances
Methods or Sources of data	Methods and information/data educators rely on to track the impact of feedback.
Direct feedback from students	Dialogue/communication, consultation, and direct feedback to educators regarding the feedback that they are given.
Engagement	Class participation, e.g., attendance, class engagement, and direct observation (changing in their attitude and behaviors in the class). Student inquiries, e.g., seeking more feedback or asking questions.
Follow-up activities	Following exams, assessments, or other activities to check students' improvement.
Performance	The improvement of assessment results or the correction of errors based on feedback.
No way to track	Educators either do not track feedback impact or have no idea how to track feedback impact.
Data-driven feedback	Educators' perception and concern regarding data-driven feedback.
Concern	Educators' concerns regarding data-driven feedback.
Accuracy	The accuracy of the data/data model used in the data-driven feedback approach.
Bias	The biases might be led by data-driven feedback, e.g., labeling or judging students.
Ethics & Privacy	Issues related to ethics and privacy.

Security	Issues related to data security, e.g., losing control, data leakage, etc.
Student acceptance	Students' responses to data-driven feedback.
Accept	Students appreciate, trust or accept data-driven feedback.
Do not accept	Students do not accept, doubt about data-driven feedback.
Educator perception	Educators' perception of how useful the data-driven feedback is.
Not useful	Educators perceive that data-driven feedback is not useful.
Semi-useful	Educators perceive data-driven feedback as only semi-useful.
Useful	Educators perceive data-driven feedback as useful.
Perception	Educators' perceptions of feedback effective elements and challenges.
Challenges	All challenges that educators and students face during the feedback process.
Student-related challenges	Challenges/reasons that stop students from benefiting from the feedback.
Educator-related challenges	Challenges that educators face when providing feedback to students.
Effective elements	Elements and factors that educators believe or experience to be effective in the feedback process.
Feedback design	Educator perceptions, beliefs, and current practice of or experience with feedback.
Cognitive	How the feedback is constructed to improve students' cognitive ability.
Feedback content & structure	The feedback content and structure can be based on the concept, technique, strategy, process, and other aspects of the students' work.
FP	Feedback on process, e.g., feedback on the method or process that is used to complete a task, and how students complete the task.
FR	Feedback on self-regulation, e.g., Encouraging students to have the self-regulation ability, giving some cues and prompts.
FS	Feedback on person, e.g., you are a great student, well done, praises to students, etc.
FT	Feedback on Task, e.g., whether a work is correct or incorrect.
Individualized	e.g., Individualized feedback, personalized feedback, specific feedback, targeted feedback, etc.

language & clarity	The feedback language and terminology are expressed in a clear and unambiguous manner, so students can easily understand.
Feedback purpose	The reasons for giving feedback, such as comments on goals, student processes, or future progress.
Feed back	The purpose of providing feedback on the progress, e.g., How am I going? What progress is being made toward the goal?
Feed forward	The purpose of giving suggestions and instructions for making improvements, e.g., Where to next? What activities need to be undertaken to make better progress?
Feed up	The purpose of indicating the goals and objectives of the activity, e.g., Where am I going? What are the goals?
Impact on learning	e.g., continuous impact, long-term impact.
Social-affective	The social and relational impact on students' learning.
Feedback tone	The manner in which feedback is expressed(e.g., positive, negative, polite, encouraging, unbiased, non-personal, too critical, educator's unacceptable communication, etc.)
T-S relationship	Good or bad educator and student relationship.
Two-way process (reciprocal)	e.g., two-way communication, dialogic feedback, conversational feedback, encouraging continuous dialogue, etc.
Structural	How the feedback is constructed and managed by the educator and institution.
Feedback media	In what manner the feedback is provided.
F2F	e.g., Face to face communication, virtual/zoom meeting, consultation, etc.
Video	e.g., Verbal feedback recorded in video format, visual presentation, etc.
Written	e.g., Written feedback on formal assignment, feedback is provided via email, annotation on the assignment, etc.
Feedback timing	The opportune timing of providing feedback, e.g., live, within timeframe, late, etc.
Learning design	How the feedback is designed to be aligned with learning, e.g., learning objectives, opportunities for applying the feedback, marking rubric, assessment design (subsequent), feedback mechanism, class arrangement (groups activity, class size, etc.), providing exemplars of the assignment or works.
Technology	The accessibility of the feedback, or the technology constraint for providing effective feedback.

Student-related factors	Student-related issues or factors that influence whether or not feedback works.
Appreciation	Recognizing the value of feedback and perceiving their active role in the feedback process.
Self-regulation capability	Students' cognitive capabilities, e.g., self-reflection capability, the level of knowledge or understanding, time management skills, ability to control over their thoughts, feelings and actions.
Sense-making	The ability to understand feedback, e.g., language barrier.
Language barrier	Unable to understand the feedback due to the language barrier, e.g., international students, non-native speaker of English.
Understanding requirements and criteria	Unable to understand the feedback because students don't understand the assessment criteria.
Student disposition	Student characteristics and the tendency to behave.
Expectation	Different expectations compared with educators in terms of feedback or results.
Student attitude	Attitude towards learning, e.g., willing to learn, careless with their learning/education, engaging in learning activities, lack of motivation, etc.
Student personality	e.g., shy, fear of criticism, grade-oriented, demotivated, etc.
Educator-related factors	Educator-related issues or factors that influence whether or not feedback works.
Educator capability	Thatcher's knowledge level, communication skills, etc.
Educator disposition	Educator characteristics and the tendency to behave.
Belief	The educator's belief/prejudice about what makes feedback effective or ineffective.
Educator attitude	Educator's attitude towards teaching, e.g., professional, passionate about teaching, etc.
Educator personality	e.g., approachable, friendly, etc.
Educator time constraints or resource limitations	Educator time constraints due to unmanageable workload, the volume of the feedback, multiple roles in the institution, admin pressure (cross-checking), etc.