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DESIGNING INSTITUTIONAL CONTINUITY FOR CAREER
SWITCHERS IN INTENSIVE RESKILLING: A RESEARCH
THROUGH DESIGN CASE STUDY AT KOOD JÕHVI

INSTITUTIONAALSE JÄRJEPIDEVUSE DISAINIMINE
KARJÄÄRIPÖÖRAJATELE INTENSIIVSES ÜMBERÕPPES:
DISAINIUURING KOOD JÕHVI NÄITEL

Master thesis

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AUTHOR'S DECLARATION

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List of Abbreviations

Term	Working definition	Section
Anti-mattering	The felt experience of being unimportant to others, of being noticed by no one, and of having one's presence or absence be of no consequence. Adopted in this thesis as the operational definition of <i>silent fade</i> .	3.4.3
Boundary	Shorthand for the <i>learning-to-labour boundary</i> : the conceptual zone where formal training ends and labour-market participation begins.	3.4.1
Mattering	The felt experience of being noticed, of having one's continued participation be of consequence to the institution. The lever through which silent fade is reduced.	3.4.4
Provisional self	A trial version of a new professional identity that the career switcher tests through observing role models, experimenting with self-presentation, and evaluating against feedback.	3.4.2
Silent fade	The gradual disengagement of a learner from the institution and from the transition itself, occurring without any single decisive moment. Operationalised through Flett's <i>anti-mattering</i> .	3.4.3

WHY Card

The A4 one-page artefact produced in the A1 workshop that captures the participant's audience-translated articulation of the personal rationale for the career change.

6.3

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1. Introduction

1.1 The problem

People who change careers through intensive reskilling do not always reach the new role. At kood/Jõhv, an Estonian peer-learning programme that prepares career switchers for entry-level technology work, batch 5 entered with 131 participants and graduated 87, an attrition rate of 33.6%. Of the 22 batch 5 graduates surveyed for this thesis, 18 rated the job-application phase after graduation as much harder than the learning phase before it and 7 reported that nothing had helped them through it.

The pattern across both datasets points in one direction. The institution support, signals and accountability are present during studies and in the end at graduation. The boundary the institution treats as a finish line is the learner's hardest part of the journey.

This thesis treats that mismatch as a design problem. Based on research it is not a problem of motivation, talent or technical readiness on the learner's side. It is a misalignment between where the institution stops designing and where the learner still needs the institutional support.

1.2 Why this matters

Academic relevance. Two well-developed bodies of work bear on the boundary at which this thesis exists, but they rarely speak to each other. The first is the persistence and belonging literature in higher education (Tinto, 1993; Strayhorn, 2019; Flett, 2018), which explains why learners stay or leave during formal study. The second is the career-transition literature (Schlossberg, 1981; Savickas, 2005; Ibarra 1999, 2003), which describes the longer arc of changing roles. The boundary between formal learning and labour-market entry sits exactly between them. The thesis does not propose a new theory at this boundary. It uses the literature to extend institutional accountability across the boundary.

Practical relevance. The structural picture is captured by three sources. The International Labour Organization's *World Employment and Social Outlook 2021* documents how digital labour platforms are reshaping how work is organised and how people move

between roles. The World Economic Forum's *Future of Jobs Report 2025* estimates that 59 in 100 workers worldwide will need training by 2030, with 39% of core skills expected to change between 2025 and 2030. The OECD's *Skills Outlook 2023* sets these patterns inside a longer-term framing of digital transition. Reskilling is no longer a niche category - it is a category most working lives will pass through at least once.

Inside that picture, the kood/Jõhvi case is informative. The programme exhibits the structural features of the contemporary reskilling category: cohort-based intensive learning, peer-driven pedagogy, intake of career switchers, and a graduation-to-employment boundary the institution does not formally cross.

1.3 Aim and research questions

The thesis asks how kood/Jõhvi could stay present for learners across the boundary at which it currently stops, and what that staying-present reveals about institutional mattering as a design resource. Institutional design surface is the working term for the routines, signals, supports and accountabilities the institution provides; the thesis treats it as a single object that can be extended.

Three research questions of three different types, give that a structure.

RQ1 (descriptive). **What patterns characterise dropout and post-graduation transition difficulty among learners at kood/Jõhvi?**

RQ2 (design). **How can institutional design surface be extended across the learning-to-labour boundary to reduce silent fade?**

RQ3 (interpretive). **What does the resulting design family reveal about the relationship between institutional mattering and successful career transition?**

The thesis treats *silent fade* as the gradual disengagement of a learner from the institution and from the transition itself, occurring without a single decision moment. It treats *mattering* as the felt experience of being noticed by the institution of having one's continued participation be of consequence (Flett 2018; Strayhorn 2019). It treats *institutional design surface* as the set of routines and signals through which the institution maintains presence in the learner's experience.

1.4 Approach

The thesis adopts a qualitative mixed-methods approach (Creswell and Plano Clark, 2018) within the Research through Design (Frayling, 1993; Zimmerman, Forlizzi and Evenson, 2007).

The quantitative stream consists of two cohort surveys: a dropout survey covering participants who left between 2023 and 2026 (n=38) and a graduate survey of batch 5 (n=22). The qualitative stream consists of semi-structured interviews with training providers and recruiters, analysed in three layers (thematic coding, Jobs-to-be-Done coding, mapped pain clusters scored on Frequency × Severity × Designability). The design stream produces two paired artefacts: A1, a final-week WHY Card workshop and A2, a four-week post-graduation emails at week 0, week 2 and week 4. The two artefacts are piloted as a Wizard-of-Oz study.

The researcher is a practitioner inside the institution. This position is grounded in Schön's (1983) practitioner tradition and is treated as methodologically productive. It is disclosed openly throughout.

1.5 Structure of the thesis

Chapter 2 reviews the literature and develops the theoretical anchor through which the rest of the thesis reads its data and its design moves. Chapter 3 defines the problem in conceptual terms, states the working assumptions and lays out the conceptual framework, the research questions and the design propositions. Chapter 4 reports the methodology, including case selection, sampling, analysis and ethics. Chapter 5 reports the empirical findings from the two cohort surveys, the qualitative interviews and the industry triangulation. Chapter 6 presents the design family A1 and A2, with its mechanics and the pilot specification. Chapter 7 states direct answers to the three research questions, restates the limitations in their consequence form and proposes future work. Chapter 8 lists the references.

2. Background & Literature

2.1 Career transition as a contemporary research object

Over several decades, career transition has been rethought. It used to be treated as an unusual disruption. It is now treated as a normal, recurring part of working life. Schlossberg was an early voice in this shift. His model treats a transition as a process of adjustment that unfolds over time, not as a single event. Savickas took the lineage further with career construction theory. In his account, people keep telling and retelling their occupational story as the labour market changes around them. The three authors do not compete; they cover different parts of the same phenomenon. Schlossberg describes what happens during a transition. Savickas describes the meaning-making work that transitions ask of the person.

A third strand sharpens the lineage from the arc of transition to the work of identity. Ibarra (1999) studies how people adapt to a new professional role and finds that adaptation proceeds through what she terms provisional selves: trial versions of the new identity that the person tests through three moves: observing role models, experimenting with self-presentation, and evaluating those experiments against feedback from others. Ibarra (2003) develops this into a full account of career change in which the harder problem is not acquiring the technical content of the new field but rebuilding a sense of who one is within it. For the present thesis this strand is decisive. It names what the career switcher actually carries across the learning-to-labour boundary - an unfinished professional identity - and it specifies that the provisional self cannot be tested in isolation, because all three moves require an audience. Where Schlossberg describes the shape of a transition and Savickas the meaning-making it demands, Ibarra locates the specific mechanism, identity adaptation, that the institutional side of this thesis is designed to support.

Two things in this lineage need flagging for the present thesis. First, all three authors wrote before the kind of intensive, platform-supported reskilling that kood/Jõhvi runs. The transitions they had in mind happened against long employment norms. Today's reskilling cohorts move much faster and on shorter timelines that the older models do not match directly. Second, the lineage focuses more on what the person experiences than on the institutions involved in the transition. Reskilling providers, recruiters and employers do appear in the models, but they are not the main unit of analysis. The

thesis therefore uses this lineage to ground the experiential side of transition and brings in other literatures to cover the institutional side.

2.2 Persistence, integration and mattering

The literature on persistence in formal education provides the primary theoretical resource for understanding why learners stay or leave during the learning phase. Tinto's integration model proposes that the probability of persistence rises with the strength of the learner's academic and social integration into the institution. Where the learner experiences institutional accountability, recognition and social ties to peers and staff, persistence is supported. Where these conditions are weak, attrition becomes more likely. The model has been the spine of higher-education persistence research for nearly half a century and is empirically robust within its domain.

Tinto's model has been critiqued for two main shortcomings. The first is its assumption of relatively homogeneous learners moving through traditional institutional structures, which sits awkwardly with the intensive, peer-driven cohorts characteristic of reskilling programmes. The second is its early attention to the affective dimensions of integration, particularly the experience of belonging that integration is supposed to produce.

Strayhorn addresses the second critique directly through the construct of sense of belonging, which he frames as a basic human need that, when met in educational contexts, supports persistence and engagement. Strayhorn's contribution is to specify the mechanism by which integration supports persistence: integration produces belonging, and belonging produces continued participation. The construct is empirically operationalised across several populations and contexts, with consistent findings.

Flett extends this terrain in the opposite direction by theorising anti-mattering, defined as the experience of being unimportant to others, of being noticed by no one, and of having one's presence or absence be of no consequence. Anti-mattering is conceptually distinct from low belonging in that it foregrounds the felt invisibility of the individual within a social or institutional setting. Flett's work links anti-mattering to a range of psychological consequences including disengagement, withdrawal and depression. For the present thesis, anti-mattering serves as the operational definition of silent fade, the gradual disengagement pattern.

The three sources cohere into a structured account: Tinto names the institutional conditions that support persistence, Strayhorn names the affective state that those conditions produce, and Flett names the felt experience of those conditions being absent.

The thesis adopts this three-way account as the theoretical anchor for its central claim that institutional design surfaces across the learning to labour boundary, can reduce silent fade.

2.3 Architecture, affordances and institutional surface

If mattering is the lever, the design moves through which the lever is pulled require their own grounding. The thesis draws on three traditions that converge on the proposition that small changes in the environment can produce disproportionate behavioural effects. Norman supplies the language of cue and signal. Fogg supplies the operational specification of when a cue fires. Ibarra supplies the purpose the cue serves at the boundary, by naming the audience the provisional professional self requires while it is being tested.

Norman's (2013) work on affordances treats designed environments as systems of cues that signal what action is possible and what is expected. The framing originated in industrial design but has been productively applied across human-computer interaction and service design. For the institutional setting, affordances are read as the signals through which the institution communicates what is offered, what is expected and what is permitted.

Fogg's Behaviour Model proposes that behaviour change occurs at the convergence of three elements: motivation, ability and prompt. The model specifies that, when motivation and ability are present, the addition of a prompt produces behaviour, while the absence of any one element prevents it. The model is widely used in behaviour-design practice and has been validated across digital health, productivity and educational contexts. For the present thesis, the model justifies the design move toward institutional prompts at moments where motivation and ability are likely to be present but where in the absence of institutional surface, is not supplied.

Norman, Fogg and Ibarra are not interchangeable. Norman names what an institutional cue is. Fogg names when it fires. Ibarra names what it is for. Together they provide the design grammar through which the artefacts in Chapter 6 are described.

2.4 Research through Design as research paradigm

The thesis adopts Research through Design as its governing paradigm. The literature that supports this position requires its own treatment because the paradigm is not yet uniformly recognised across all academic traditions and warrants explicit grounding.

Frayling introduced the distinction between research into design, research for design and research through design. The third category, research through design, treats the design process and its outputs as the locus of research itself, generating knowledge that other forms of inquiry cannot easily access. Zimmerman, Forlizzi and Evenson operationalised the category for human-computer interaction, proposing four criteria for evaluating research-through-design contributions: process, invention, relevance and extensibility. Their formulation has become the most cited reference point for HCI work that locates its contribution in the artefact and its surrounding reflection.

Schön provides the broader epistemic justification for treating practitioner-researcher work as legitimate inquiry through the construct of the practitioner. Schön's argument is that professional practice generates knowledge through reflection-in-action and reflection-on-action that cannot be reduced to applied technical rationality. For an embedded practitioner-researcher position such as the one this thesis adopts, Schön supplies the methodology.

Christensen, Hall, Dillon and Duncan (2016) develop the Jobs-to-be-Done framework, originally a market-research instrument, into a more general analytic lens for understanding what people are trying to achieve when they engage with products, services or institutions. The framework's contribution is to shift the unit of analysis from the user to the job. For the analytic coding work performed in this thesis, JTBD is used as a coding lens for surfacing what learners, the institution and employers are trying to get done at the learning to labour boundary.

2.5 Gaps in the literature and the position of this thesis

The literature reviewed above supplies a coherent set of resources for thinking about career transition, persistence, mattering and design. Two gaps remain that the present thesis attempts to address.

The first gap is between the persistence literature, which is well developed for the period of formal learning, and the career transition literature, which is well developed for the

arc of changing roles. The two literatures rarely engage with each other. Tinto, Strayhorn and Flett are typically read as belonging to the higher-education persistence conversation, while Schlossberg, Savickas and Ibarra are typically read as belonging to the career-transition conversation. The boundary between formal learning and labour-market entry, which this thesis identifies as the locus of the design problem, falls between these two literatures. The thesis does not propose a new theory. It uses the persistence literature to extend institutional accountability across the boundary and uses the career transition literature to ground the experiential side.

The second gap is between the design-research literature on artefacts as research outputs and the institutional-design literature on system-level interventions. The thesis sits at the intersection by treating artefacts as the means through which institutional design surface is extended and by treating that extension as both a designed object and an interpretive claim about how reskilling institutions could be configured.

3. Problem Definition & Framework

3.1 Problem statement

The problem this thesis addresses is structural rather than individual. At kood/Jõhvi, learners complete the formal training programme and reach graduation, but the move into employment feels emotionally harder than the move into learning was. A substantial share leaves before graduation, and the majority of those who graduate describe the application phase as more difficult than the period of study. The institutional design surface and the learner's journey are not coherent with each other: the institution's surface ends at graduation, the learner's transition does not.

The problem is therefore not a deficit of motivation, talent or technical readiness on the part of the learner. It is a misalignment between where the institution stops designing and where the learner still needs the supporting system. This thesis treats that misalignment as a system-level design problem and asks how the institutional design surface could be extended across the learning to labour.

The framing is consistent with career transition theory, which treats transitions as processes of psychological, social and signalling adaptation rather than as point events (Schlossberg 1981; Savickas 2005). It is also consistent with the persistence literature in education, which links exit and disengagement to weak academic and social integration with the institution (Tinto, 1993). Both literatures suggest that what the learner experiences as a private struggle has structural causes that institutions can address.

3.2 Scope and boundaries

The scope of the thesis is bounded along four axes.

The empirical scope is single-institution. The case is kood/Jõhvi. Findings are presented as situated within this institution and not as generalised claims about reskilling at large. Comparative analysis with other Estonian or Nordic reskilling programmes is out of scope.

The scope is learner-centred and institution-centred. The learner perspective is foundational and is supplied by the dropout and graduate datasets. The institutional perspective is supplied by interviews with the training-provider role and by the researcher position.

The limited scope covers the arc from selection sprint through learning, graduation and the early post-graduation application phase. Outcomes beyond first employment are out of scope. Career trajectories several years after graduation are not tracked.

The intervention scope is at the level of institutional design surface, meaning routines, artefacts, signals and accountabilities. Curriculum redesign, technical content selection, regulatory reform and labour-market policy are out of scope. The thesis is concerned with the conditions under which the institution meets the learner at the boundary, not with the technical material being taught.

3.3 Assumptions

The thesis carries four working assumptions that should be made explicit.

First, the case is treated as informative for reskilling institutions, formal generalisability is not claimed. The reasoning is that kood/Jõhvi exhibits the structural features of the contemporary reskilling category: cohort-based intensive learning, peer-driven pedagogy, intake of career switchers and a graduation-to-employment boundary that the institution does not formally cross.

Second, the researcher position is treated as methodologically productive rather than as a source of bias to be eliminated. This position is grounded in the reflective-practitioner tradition (Schön, 1983) and is managed through transparent reporting and triangulation between data streams.

Third, designed artefacts are treated as carriers of knowledge. This assumption is the core commitment of the Research through Design paradigm and licenses the inclusion of the design family A1 and A2 as research outcomes rather than as illustrative materials.

Fourth, the frame Jobs-to-be-Done (Christensen, Hall, Dillon and Duncan, 2016) is treated as appropriate for surfacing what each actor in the system is trying to achieve. This framing is used as a coding lens rather than as a market-research instrument.

3.4 Conceptual framework

The conceptual framework rests on five building blocks. Each is theoretically anchored and contributes to the central thesis claim that institutional design surfaces should be extended across the learning to labour.

3.4.1 The learning to labour

The learning to labour is the conceptual zone where formal training ends and labour-market participation begins. In the kood/Jõhvi case, this boundary is concretely marked by graduation. From the institution's perspective, graduation is a completion event. From the learner's perspective, graduation is a transition event. The thesis treats this asymmetry as the locus of the problem. The institution's accountability, communication, scaffolding and presence taper off at the boundary, while the learner's need for those same supports remains high or in some cases, peaks.

3.4.2 Identity adaptation as what crosses the boundary

If the boundary is where the problem is located, identity adaptation is what the learner is carrying when they reach it. Ibarra (1999) shows that adapting to a new professional role proceeds through provisional selves - trial versions of the new identity, tested by observing role models, experimenting with self-presentation, and evaluating the result against feedback. The career switcher does not arrive at the boundary with a finished professional identity; they arrive with a provisional one. The thesis treats this as the content of the transition: what crosses the learning-to-labour boundary is not a body of technical knowledge but an unfinished professional self. The consequence for institutional design is direct. Each of Ibarra's three moves requires an audience - role models to observe, a setting in which to experiment, others whose feedback the experiment is tested against. When the institution disengages at graduation, that audience is withdrawn at the exact point the provisional self most needs it.

3.4.3 Silent fade as mechanism

Silent fade refers to the gradual disengagement of a learner from the institution and from the transition itself, occurring without any rupture and without any explicit decision to stop. The pattern is observable both during the learning phase, where it precedes dropout and after graduation, where it precedes prolonged unemployment or abandonment of the new career direction. Silent fade is not a single behaviour but a category of slow disengagement that the institution typically detects only after it has progressed.

The thesis adopts Flett's construct of anti-mattering as the operational definition of silent fade. Anti-mattering is the experience of being unimportant to others, of being noticed by no one and of having one's presence or absence be of no consequence. Where Flett's construct names the felt experience, silent fade names its observable institutional consequence. The two are treated as paired.

Read alongside identity adaptation, anti-mattering at the boundary is not only the felt experience of being unimportant; it is the absence of the audience the provisional self requires. Silent fade and stalled identity adaptation are, at the boundary, the same event seen from two sides.

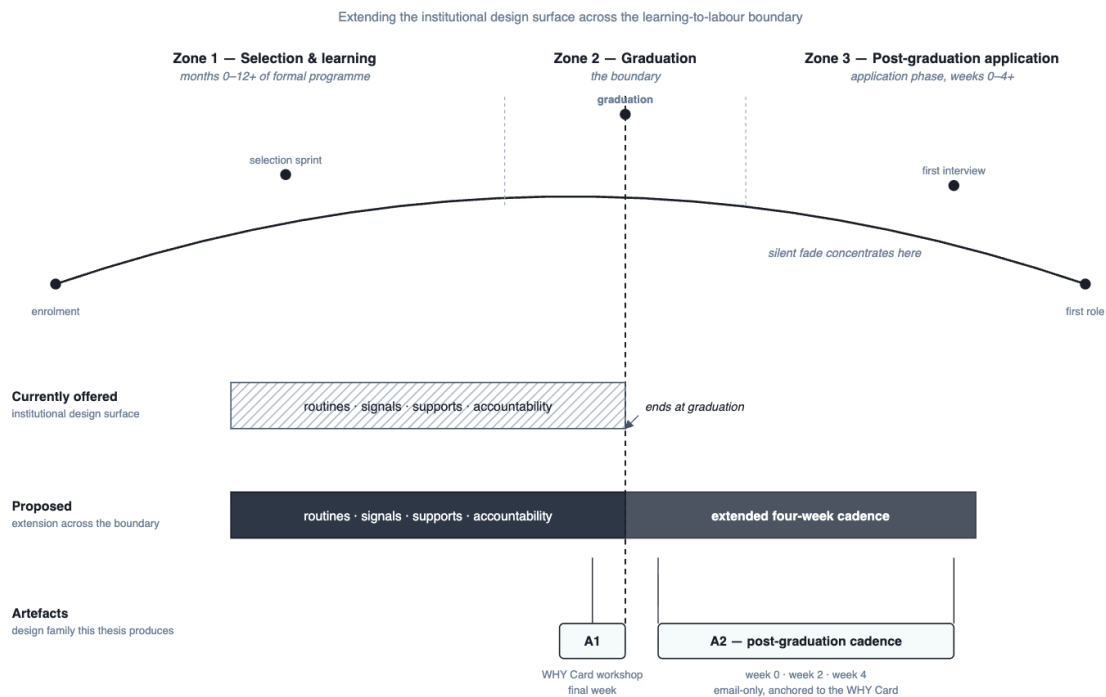
3.4.4 Mattering as theoretical lever

If silent fade is the mechanism, mattering is the lever. The literature on belongingness and integration in higher education establishes a robust link between sense of belonging, academic and social integration and persistence (Tinto 1993; Strayhorn 2019). Where learners experience institutional attention, recognition and accountability, the probability of disengagement falls. Where institutional attention is absent or stops, the probability rises.

The conceptual move the thesis makes is to extend this lever across the boundary. If mattering reduces silent fade during learning, it should also reduce silent fade after graduation, provided the institution maintains presence. This proposition is what the design phase puts to the test through A1 and A2.

3.4.5 Extending institutional design surface as design move

The design move is therefore neither a redesign of pedagogy nor a redesign of employability. It is the extension of institutional design surface across the boundary at which the institution currently disengages. Three theoretical anchors support this move. Norman provides the affordances frame, in which institutional surface is read as a system of cues that signal what action is possible and what is expected. Fogg provides the behaviour-model frame, in which behaviour change requires the convergence of motivation, ability and prompt, and in which institutional design can supply the prompt the learner alone cannot. Ibarra provides the third anchor and specifies the *purpose* the surface serves: where Norman and Fogg describe how an institutional cue is built and when it fires, Ibarra explains what it is for - to keep an audience present for the provisional self while it is still being tested. The extended design surface is, in these terms, a sustained audience for an identity in formation.



3.5 Research questions

The conceptual framework supports three research questions.

RQ1, descriptive in character: what patterns characterise dropout and post-graduation transition difficulty among learners at kood/Jõhvi?

RQ2, design-oriented in character: how can institutional design surface be extended across the learning to labour boundary to reduce silent fade?

RQ3, interpretive in character: what does the resulting design family reveal about the relationship between institutional mattering and successful career transition?

3.6 Design propositions

Traditional hypotheses are not applicable to the design component of this thesis. The qualitative orientation and the Research through Design paradigm carry knowledge through artefacts and reflection. What is applicable and what the thesis adopts, is the form of the design proposition: a claim that the design phase puts under productive pressure rather than under formal test.

The first proposition is that silent fade is concentrated at the boundary at which the institution disengages.

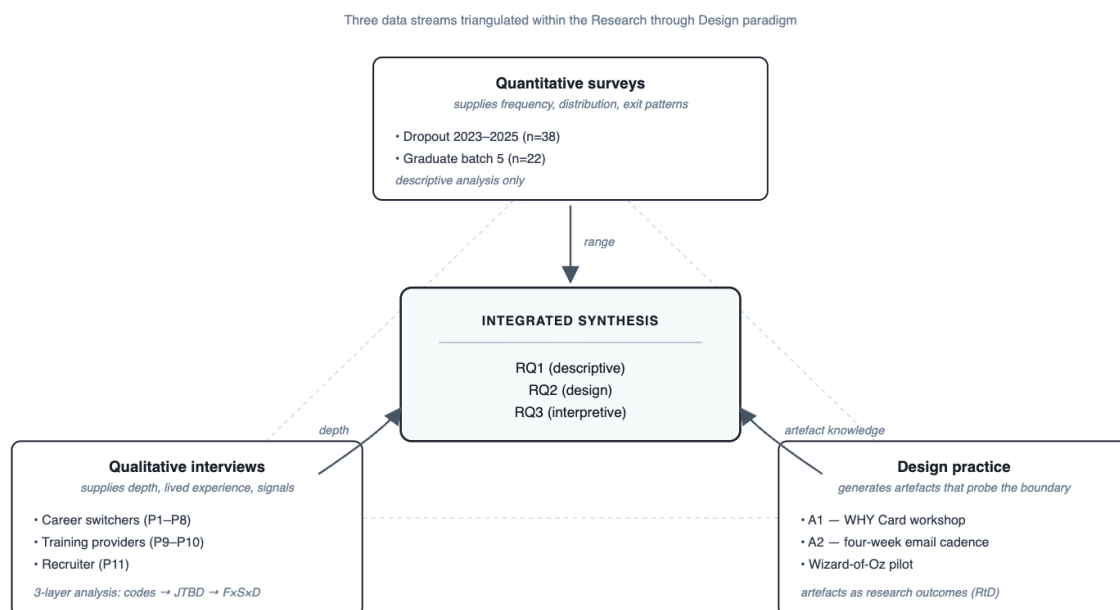
The second proposition is that institutional mattering reduces silent fade and, read through identity adaptation, that institutional presence at the boundary works by keeping an audience available for the learner's provisional professional self.

The third proposition is that the institutional design surface can be extended across the boundary at low operational cost, using lightweight artefacts and routines rather than structural reform of the programme.

4. Methodology

4.1 Research approach

This thesis adopts a qualitative mixed-methods approach, in which quantitative survey data, qualitative interview data and design practice are triangulated to generate insights about career transition at the boundary between formal reskilling and the labour market. The quantitative component supplies frequency, distribution and exit-stage patterns across two closed cohorts at kood/Jõhvi. The qualitative component supplies depth on lived experience, signalling practices and institutional response. The design component generates artefacts that probe how institutional design surface could be extended across the learning to labour boundary. The three components are not used to test pre-formed hypotheses against each other but to build a coherent picture of the phenomenon.



4.2 Research paradigm

The governing paradigm is Research through Design, as articulated by Frayling and operationalised for human-computer interaction research by Zimmerman, Forlizzi and Evenson. In this tradition, designed artefacts are not by-products of the research but constitute the research itself. The act of designing produces situated, partial and theory-grounded knowledge that other forms of inquiry cannot easily generate. The two artefacts produced by this thesis, A1 and A2, are therefore both research instruments

and research outcomes. Design Science Research is the closest adjacent paradigm and was considered; it was not adopted because the contribution sought here is interpretive as well as instrumental, and DSR's relevance-criterion framing does not carry that work as cleanly.

4.3 Case selection

The empirical case is kood/Jõhvi, an Estonian reskilling institution operating a peer-learning programme that prepares career switchers for entry-level technology roles. The case was selected on three grounds. First, the programme sits exactly at the learning to labour boundary that the thesis treats as the locus of the design problem. Second, the institution permits researcher access to closed cohort data that would not be available in reskilling settings. Third, the researcher is embedded as a practitioner inside the institution, which makes Schön's reflective practitioner stance methodologically appropriate.

The case is bounded as follows. The dropout dataset covers cohorts active between 2023 and 2026. The graduate dataset covers batch 5, which graduated in 2026. Findings are presented as situated within the kood/Jõhvi context and do not claim generalisability to other reskilling institutions without further work.

4.4 Data collection methods

4.4.1 Quantitative surveys

Two closed-cohort surveys form the quantitative base. The dropout survey covers participants who left kood/Jõhvi between 2023 and 2026 ($n=38$). The graduate survey covers participants who completed Batch 5 in 2026 ($n=22$). Both instruments combine closed-response items, difficulty ratings and short open-text fields. Item design followed standard practice for retrospective survey research and was reviewed for face validity before deployment.

4.4.2 Semi-structured interviews

Semi-structured interviews were conducted with two role categories: training providers and recruiters active in entry-level technology hiring. Interview guides were developed for each role. Average interview length was approximately forty minutes. Interviews were conducted in English, and stored in anonymised form. Participants are referred to

using identifiers (D - dropout, G - graduate, T - training provider, R - recruiter), with role and interview length recorded in Appendix A.

4.5 Participants and sampling

The two cohort surveys use closed-population sampling: every participant who entered the cohort window was eligible and the dataset is bounded by the cohort itself rather than by selection. The interview pool was assembled through purposive sampling (Saunders, Lewis and Thornhill, 2019), with participants chosen to cover the role categories required by the research design.

Aggregate sample profiles are reported descriptively. The dropout cohort (n=38) shows a mean age of 29.6 years, a gender split of 24 male and 14 female participants and an exit-stage distribution in which the majority of departures fall between the second and twelfth month of programme participation. The graduate cohort batch 5 (n=22) shows a mean age of 27.1 years and a gender split of 17 male and 5 female participants. Cohort context for batch 5 is as follows: 131 participants started the programme and 87 completed it, yielding a 66.4% completion rate and a 33.6% attrition rate. Survey response rate within the graduate cohort is 25.3%.

The two recruiter interviews (R-1, R-2) were drawn from the same purposive sampling frame as the training-provider interviews. Both recruiters were selected on two criteria: an active hiring role in entry-level technology recruitment, and exposure to kood/Jöhvi graduates as candidates. The limited size of the recruiter sample is acknowledged in 4.9; the recruiter interviews are treated as a situated perspective triangulated against the secondary industry synthesis rather than as a stand-alone employer dataset.

4.6 Data analysis methods

4.6.1 Quantitative analysis

Survey responses were analysed using descriptive statistics. The cohort sizes do not support hypothesis testing of the kind that inferential statistics require, and the descriptive frame is more consistent with the qualitative-dominant orientation of the research design.

4.6.2 Qualitative analysis

Interview data was analysed in three layers. The first layer applied thematic analysis as set out by Braun and Clarke (2006), producing an initial open coding pass on transcripts. The second layer re-coded the same material through the Jobs-to-be-Done lens, distinguishing functional, emotional and social jobs that learners, the institution and employers are trying to get done at the learning to labour boundary. The third layer organised codes into pain clusters using affinity mapping, with each cluster scored on three dimensions: Frequency, Severity and Designability, each on a five-point scale. The Frequency $\times$ Severity $\times$ Designability scoring was used to prioritise clusters for the design phase rather than to claim statistical significance.

4.6.3 Synthesis into design

The output of the qualitative analysis was carried into a Discover and Define synthesis modelled on the first half of the Double Diamond. The synthesis produced five How Might We reframings and identified a recommended pairing for the design phase. This pairing seeds the artefacts A1 and A2. The synthesis logic is documented to make the move from data to design traceable.

4.7 Ethical considerations

All participants gave informed consent for participation in the research. Survey responses were collected with anonymisation applied at the point of storage. Interview participants were informed of the use of their material in the thesis and identifiers were assigned to each responder. Questions were framed to avoid implied judgement and to permit the participant to decline any item without consequence. Data storage followed institutional data-handling requirements and is subject to deletion at the close of the research. The researcher's position inside kood/Jõhvī is disclosed openly and is treated as a methodological condition rather than a hidden variable.

4.8 Limitations

Several limitations apply to the methodology and shape what can be claimed from the findings.

The empirical scope is a single institution. Findings should be read as situated within the kood/Jõhvī context and not as generalised claims about reskilling more broadly.

The graduate dataset is restricted to batch 5, while the dropout dataset spans 2023 to 2026. This asymmetry means that within-cohort comparison between graduates and dropouts is not direct. The thesis treats the two datasets as complementary rather than directly comparable.

Direct employer perspective rests on two recruiter interviews (R-1, R-2) from the Estonian technology hiring market. Two interviews cannot carry the employer's voice on their own and are not treated as such. The thesis relies on secondary industry synthesis for the external benchmark and uses the recruiter interviews as a resonance check against that synthesis.

The researcher is embedded as a practitioner inside the case. This is treated as a strength under the Research through Design paradigm, since reflective practice is a legitimate position and as a risk that is managed through reporting of design decisions and through triangulation between data streams.

Quantitative cohort sizes do not support inferential testing. All quantitative claims in this thesis are descriptive.

5. Research and findings

5.1 Cohort context

Batch 5 entered the kood/Jõhvi programme with 131 participants and reached graduation with 87, yielding a completion rate of 66.4% and an attrition rate of 33.6%. The dropout dataset reported in this chapter (n=38) covers learners who left the programme between 2023 and 2026 across multiple cohorts. The graduate dataset (n=22) is restricted to batch 5 and was collected in early 2026, achieving a 25.3% response rate within the graduate population. The two datasets sit at the two ends of the same institutional arc.

5.2 Dropout cohort findings

5.2.1 Sample profile

The dropout cohort shows a mean age of 29.6 years (range 18 to 50) and a gender split of 24 male and 14 female participants. Employment status at the time of studies was distributed as 20 employed full-time, 9 unemployed, 2 freelancers, 2 part-time employed, 2 entrepreneurs and 3 in other categories, including parental leave and self-employed. The sample covers the age range typical of reskilling-track populations.

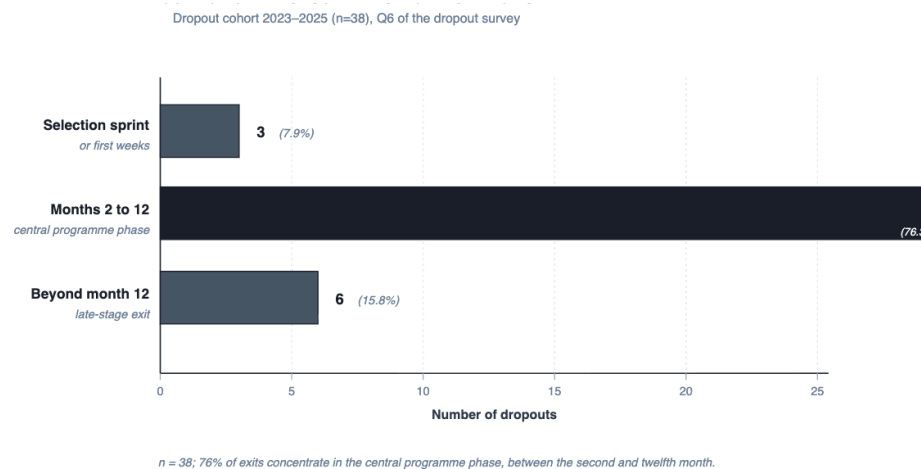
5.2.2 Risks identified at entry

Participants were asked retrospectively about the personal risks they had associated with the career change. Three categories dominate the responses. Uncertainty about whether the transition would succeed was identified by 27 of 38 participants. Financial risk, including loss of income, drawing on savings or having to leave employment, was identified by 12 of 38. Parenting risk, including the burden on caregivers and time for children, was identified by 10 of 38. Three participants reported no perceived risks at entry.

5.2.3 Exit stage and exit pattern

Exit stage shows a strong central concentration. 3 participants left during the selection sprint or the first weeks. 29 participants left between the second and twelfth month of the main programme. 6 participants left after the twelfth month. The majority of exits

therefore occur during the central phase of formal learning rather than at intake or close to graduation.



The shape of the exit decision was probed in Q7. None of the respondents described their exit as the result of a single decisive moment. Approximately 15 explicitly used the language of "drift", "gradually" or "over time". The remaining responses described the exit as a mixed or unfolding process that combined gradual disengagement with specific contextual triggers. The complete absence of single-moment exits is consistent across the dataset.

5.2.4 Between programme and life circumstances

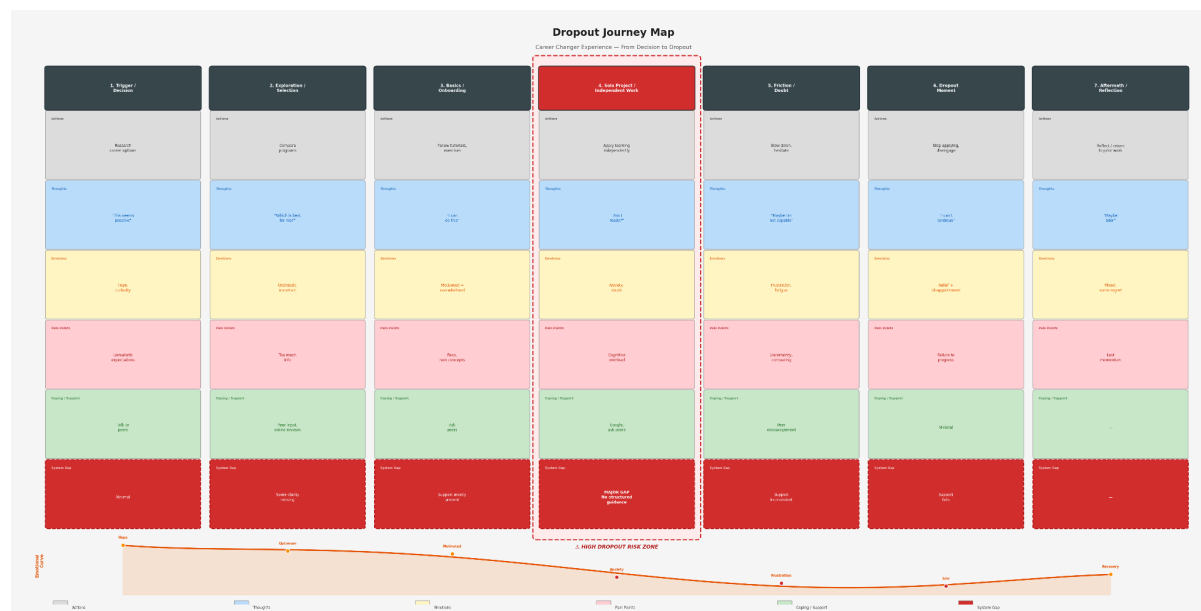
Q8 asked participants to weigh attribution between the programme itself and circumstances outside it. Responses range from full attribution to life circumstance ("It was all circumstance", D-03), to mixed attribution ("I think 50%", D-01; "I would say 20:80", D-05), to attribution toward the programme environment ("the program was unwelcoming", D-01; "discord has to be always supportive or, when criticism is needed, then mature and supportive", D-07). The distribution is consistent with multi-factor exits rather than single-cause exits.

5.2.5 Recommendations from dropouts

Asked what one change could most help future learners (Q11), responses cluster around four themes: more human contact and check-ins, more structured guidance at the start, clearer indication of expected workload and ways to learn, and stronger team formation routines. Representative formulations include "more human support" (D-01), "some support people in each batch who the students can feel safe talking to on a semi-friend

level" (D-02), "I really did not find the thing that remotely worked" (D-05) and "take some more time to introduce students to the program" (D-06).

5.2.6 Dropout journey map



5.3 Graduate cohort findings

5.3.1 Sample profile

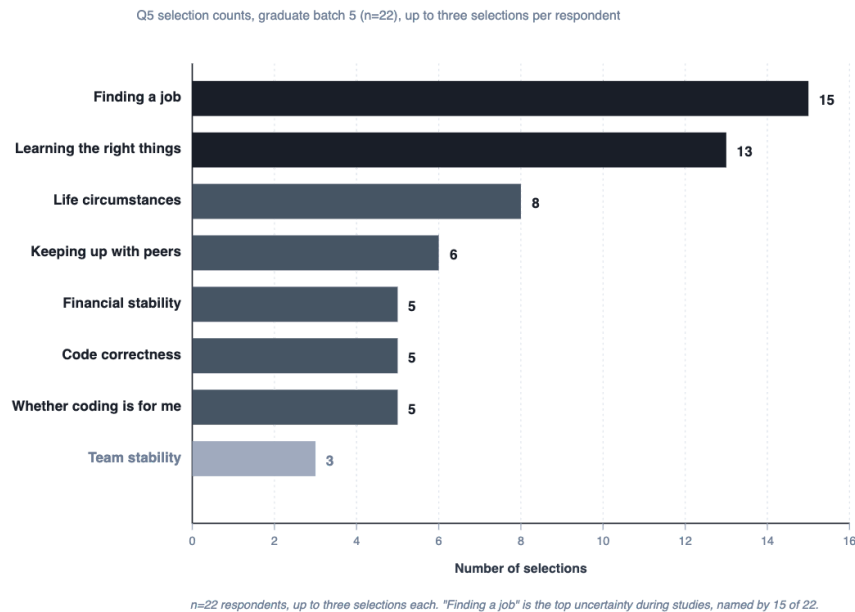
The graduate cohort batch 5 shows a mean age of 27.1 years (range 19 to 41) and a gender split of 17 male and 5 female participants. Employment status when starting the programme was distributed as 10 unemployed, 7 employed full-time, 2 self-employed, 1 employed part-time and 2 in other or mixed categories. The cohort therefore over-represents male participants and is younger on average than the dropout cohort.

5.3.2 Confidence and uncertainty during learning

Q4 asked how often participants felt confident they were making real progress. Responses use a mix of frequency labels and free-text formulations, and are not reducible to a single ordinal scale. The clear central tendency in the responses is "most of the time" or "quite often", with several participants anchoring confidence to specific milestones such as project submissions or module endings.

Q5 asked which areas participants were most uncertain about during studies, with up to three selections per respondent. The top four selections in descending order were:

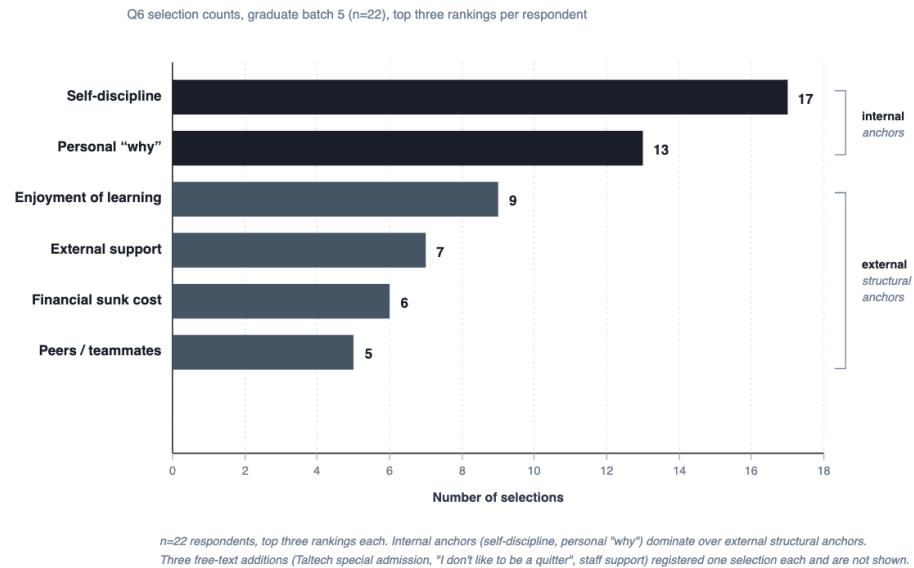
"finding a job" (15 of 22), "learning the right things" (13 of 22), "life circumstances" (8 of 22) and "keeping up with peers" (6 of 22). Three further items, "financial stability", "code correctness" and "whether coding is for me", each registered five selections.



The relative position of "finding a job" at the top of the uncertainty ranking is reported here as descriptive.

5.3.3 What kept them going

Q6 asked what kept participants going, with up to three rankings. Self-discipline received 17 selections, personal "why" received 13, enjoyment of learning 9, external support 7, financial sunk cost 6 and peers or teammates 5. Internal motivational anchors (self-discipline and personal "why") therefore dominate over external structural anchors (peers, staff support).

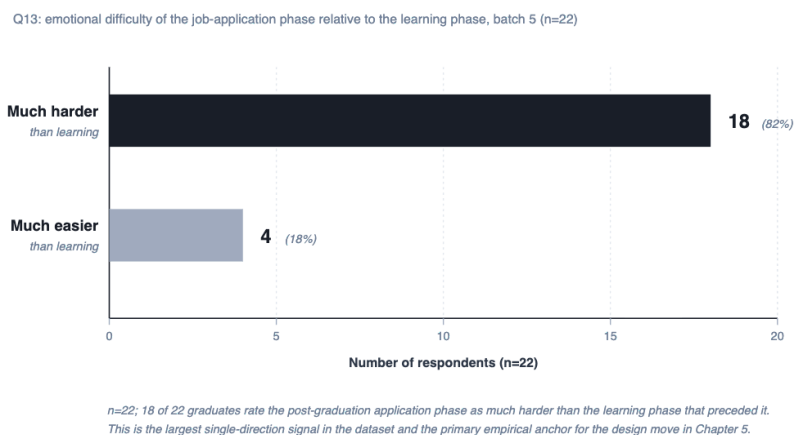


5.3.4 Life events during studies

Q9 asked which life events occurred during studies. Job change was reported by 11 of 22 participants, financial crisis by 7, health issue by 7, relocation by 5 and family or caregiving change by 5. Six participants reported no events. Q10 asked how close participants came to quitting because of a life event. Seventeen reported "not at all" and five reported "nearly quit". The pattern indicates that life events were widespread, but that they brought roughly a quarter of the cohort close to the exit.

5.3.5 Application phase difficulty

Q13 asked participants to rate the emotional difficulty of the job-application phase relative to the learning phase. 18 of 22 rated the application phase as "much harder" than learning, while 4 rated it "much easier". This is the largest single-direction signal in the dataset.

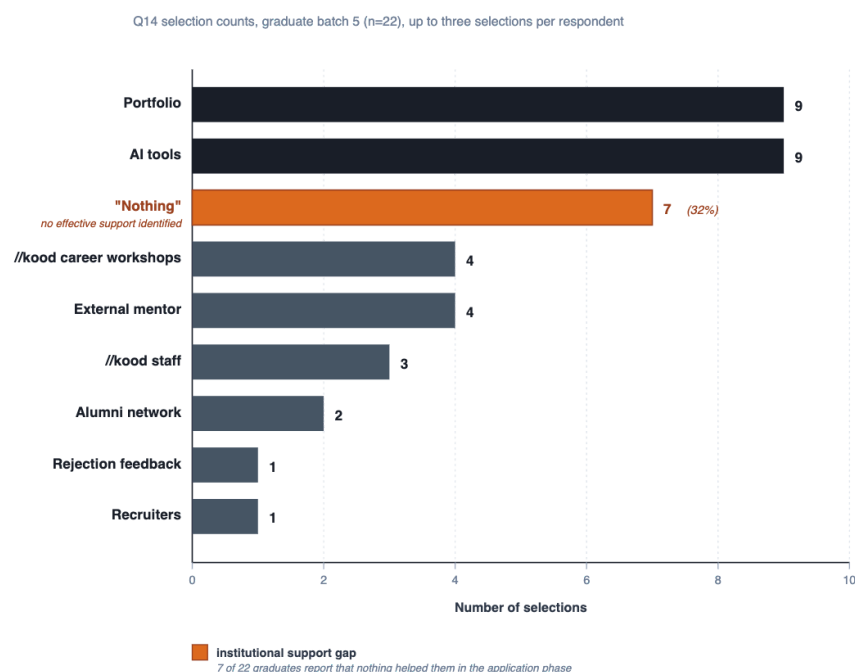


5.3.6 Employment status and application activity

Q11 asked about confidence regarding employment in tech. 9 of 22 reported being already employed, 3 were employed in non-tech and looking to transfer, 3 estimated employment within three months, 6 expected six months or more, and 1 estimated approximately six months. Q12 asked how many applications had already been sent. Responses vary widely, from 0 to over 280, and include several respondents reporting no applications because they had taken the TalTech special-admission route, were continuing in their current employment or were focused on building their own venture. The distribution is therefore better read as evidence of strategy diversity than as a single activity metric.

5.3.7 What has helped in the application phase

Q14 asked which sources of support had helped most in the application phase, with up to three selections. Portfolio and AI tools were tied at 9 selections each. 7 of 22 participants selected "nothing", indicating that nearly one third of the cohort identified no effective support for the application phase. kood/Jõhvi career workshops received 4 selections, external mentors 4, kood/Jõhvi staff 3, alumni network 2, rejection feedback 1 and recruiters 1.

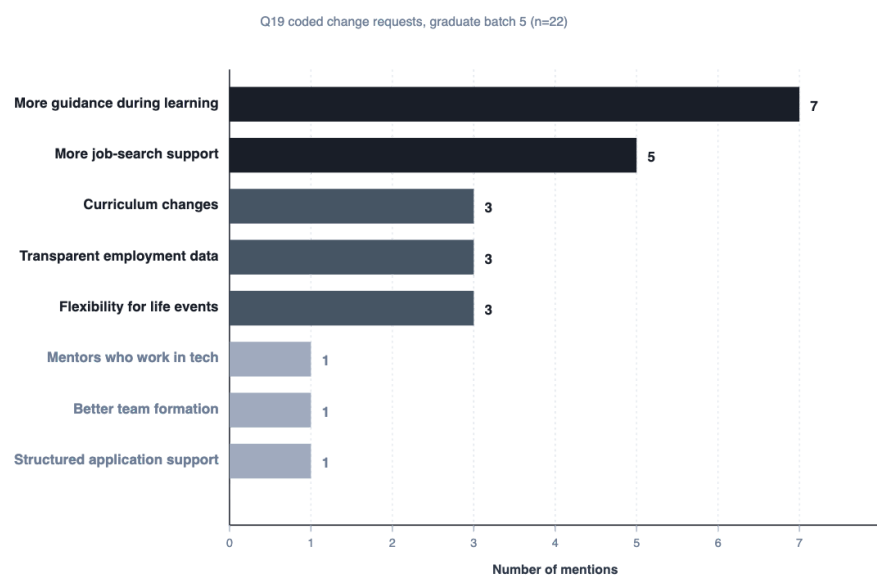


5.3.8 WHY clarity at start versus at application

Q15 asked how clear participants' personal "why" for the career change was when they started the programme. Q16 asked the same about the moment of starting to apply for jobs. Responses are mostly free-text and do not reduce cleanly to an ordinal scale. Coded across the dataset, the pattern indicates that "very clear" and "quite clear" predominate at start (Q15), while Q16 responses are more dispersed, with several participants describing the "why" as having become clearer and several others describing it as foggy, unclear or revisited. The clarity does not increase uniformly across the cohort over the period of studies.

5.3.9 Change requests

Q19 asked what one thing participants would change about kood/Jõhvi. Coded into themes, the responses cluster as follows: more guidance during learning (7), more job-search support (5), curriculum changes (3), transparent employment data (3), flexibility for life events (3), with single mentions for mentors who work in tech, better team formation and structured application support.



n=22 graduates; one respondent named three themes in a single answer, producing 24 total mentions.

"More guidance during learning" echoes the dominant dropout-cohort request (Table 6.2.5); "more job-search support" anchors A2 in Chapter 5.

5.4 Qualitative interview findings

5.4.1 Career switcher accounts

Interviews with career switchers (Appendix A) cover both the in-progress and completed transition stages. Across the interview pool, three themes recur: the perceived gap

between completed learning and felt readiness for hiring, the experience of post-graduation institutional silence as a contrast to the in-programme presence, and the uncertainty about which signals to send to employers and in what form.

5.4.2 Training-provider observations

The training-provider interview surfaces an explicit list of competencies that the formal programme does not teach but that the provider has come to recognise as critical for transition success. The list, reported by the provider in interview, includes presentation, self-expression, sales of self, stress management, self-care and learning strategy. The list is referred to in the thesis as the not-formally-taught competencies, and is treated as part of the institutional perspective on the boundary.

"OK: 1) technical skills, 2) field-specific knowledge, 3) product management, 4) problem-solving, 5) communication, 6) giving feedback, 7) analytical skills, 8) creativity, 9) independence, 10) risk tolerance, 11) perseverance, 12) discipline. NOTOK: 1) presentation skills, 2) self-expression, 3) sales of self, 4) stress management - the person as a whole (how one area supports another), 5) self-care - eating, sleeping, 6) learning strategy - the self-directed learner - how I learn."

T-1 (training provider), using her own taxonomy of "OK" and "NOTOK" competencies

5.4.3 Recruiter perspective

The recruiter interview surfaces the readiness criterion that the recruiter applies in evaluating entry-level technology candidates. The recruiter formulates this criterion as the candidate's ability to articulate a personal "why" for the career change, in clear terms, in the language of the receiving labour market. The criterion is applied as a filter at first contact and is reported by the recruiter as more discriminating than technical proficiency at the entry-level segment.

"As a recruiter, you can tell whether they have the spark, the will, and the WHY. Whether they are motivated enough to see this turn through to the end."

R-2 (recruiter)

5.5 Market Benchmark: Secondary Industry Findings

This section reads those findings against three patterns from current labour-market and reskilling sources, in line with the secondary-data triangulation procedure. Each pattern is supported by a primary or near-primary source. Figures are reported as the source publishes them, and no claim is made that the source does not itself support.

5.5.1 Skills are changing faster than credentials can keep up

The World Economic Forum's Future of Jobs Report 2025 finds that employers expect 39% of the key skills they need to change by 2030, down from 44% reported in the 2023 edition. The categories with the largest expected increase in demand are AI and big data, networks and cybersecurity, and technological literacy. LinkedIn's 2025 Workplace Learning Report adds the institutional view: 49% of learning and development professionals say their executives are worried that employees do not have the right skills to deliver the business strategy. For kood/Jõhvi, the implication is direct. The skills graduates need are changing faster than degree pipelines can refresh them, and the concern about that gap is widespread inside hiring organisations.

5.5.2 Employers are moving toward skills-based hiring

Workday's Global State of Skills report surveyed 2,300 director-level or senior business leaders at companies with at least 100 employees, in November 2024. It found that 55% of these organisations had already started moving to a skills-based talent model, and a further 23% planned to start within the next twelve months (Workday, 2024). The same survey reported that 51% of leaders are concerned about future talent shortages. Only 32% are confident their company has the skills it will need long-term, and that only 54% feel they have a clear view of the skills already in their workforce. Deloitte (2023) reads the same trend as a shift away from "pedigree-based" credential filters toward demonstrated capability, which widens access for candidates without traditional degrees. For kood/Jõhvi graduates, this means the receiving market is, on the leaders' own statements, becoming more open to candidates whose case rests on demonstrated work rather than on a degree. Whether day-to-day hiring practice has caught up with this stated intent is a separate question and should temper the implication.

5.5.3 The bigger risk for career switchers is identity, not skills

The benchmark sources converge on a point the conceptual framework already named. The risk that most distinguishes successful from stalled career switching is identity adaptation, not technical skill. The mechanism set out in 3.4.2 through Ibarra's provisional selves. What the industry data adds is independent confirmation from the employer side: the under-attended risk for career switchers entering technology roles is the unfinished work of becoming a "tech person" in their own and their colleagues' eyes, not technical readiness alone. This is the same mechanism the framework derives from the persistence and transition literature, now observed in a separate body of evidence. The design family addresses it directly; the WHY Card produces the audience-translated articulation through which the provisional self is tested.

The retention risk is an identity risk. Read across the two preceding patterns, the employer-side concern with career switchers is less about technical failure than about whether the new professional identity holds once the role begins. This is consistent with the recruiter account in 5.4.3, in which the discriminating signal at first contact is the candidate's ability to articulate a personal WHY rather than to demonstrate technical proficiency, and with the identity-adaptation strand developed in 3.4.2: a provisional professional self that is not yet stable is the risk the employer is implicitly reading for. The benchmark sources do not measure this directly; it is named here as the interpretive thread that connects the skills-gap and skills-first patterns to the thesis's own framework.

6. Design

6.1 Design family

This thesis produces two paired artefacts, A1 and A2, that together extend institutional design surface across the learning to labour boundary at kood/Jõhvi.

A1 is the WHY Card workshop. It is a facilitated session delivered in the final week of the formal programme. Its output is a one-page articulation, in the participant's own voice and translated for the receiving labour market, of the personal rationale for the career change. The artefact is referred to as the WHY Card.

A2 is the post-graduation continuity layer. It is a four-week, email-only cadence delivered to the participant after graduation, with structured waypoints at week 0, week 2 and week 4. Each waypoint is anchored to the WHY Card produced in A1 and to a short institutional message that signals continued presence. A2 is the artefact through which the institutional design surface is extended into the application phase.

The two artefacts are presented as a pair because they are interdependent. A2 without A1 has nothing to anchor to. A1 without A2 produces an output that is not carried back into the institution. Together they form the design family. The development of the family is documented in Appendix D.

6.2 Design rationale and theoretical grounding

The design rationale is anchored at four points in empirical findings and in the literature reviewed.

The first empirical anchor is the Q13 finding that 18 of 22 batch 5 graduates rate the application phase as much harder than learning. This is the largest single-direction signal in the dataset and locates the design problem at the post-graduation point.

The second empirical anchor is the Q14 finding that 7 of 22 graduates selected "nothing" when asked what has helped most in the application phase. This indicates that nearly one third of the cohort identifies no effective post-graduation support, including no institutional support.

The third empirical anchor is the Q15 to Q16 pattern, in which WHY clarity is broadly present at the start of studies and becomes more dispersed at the moment of starting to apply. The pattern is consistent with the recruiter's stated readiness criterion, under which the candidate's articulated WHY is more discriminating at first contact than technical proficiency at the entry-level segment.

The fourth empirical anchor is the dropout exit-pattern findings, in which no respondents described their exit as a single decisive moment. The pattern is consistent across the dataset and indicates that disengagement at kood/Jõhvi takes the shape of gradual fade rather than rupture. Although the design family is targeted at the post-graduation phase rather than the learning phase, the gradual-fade pattern motivates the decision to design through structured, repeated institutional contact rather than through one-off.

The theoretical grounding rests on the persistence and mattering literature and on the identity strand. Tinto provides the core proposition that institutional integration supports persistence. Strayhorn names the felt experience that integration produces, a sense of belonging. Flett names the felt experience that its absence produces, anti-mattering, which the thesis adopts as the operational definition of silent fade. Ibarra names what is at stake when that experience occurs at the boundary: the career switcher is carrying a provisional professional self, and each step of testing it: observing role models, experimenting with self-presentation, evaluating against feedback - requires an audience. Norman and Fogg supply the design grammar through which the institutional surface is built and timed: the surface as a system of cues, small architectural changes as legitimate behavioural interventions, and prompts that fire behaviour where motivation and ability are present but the prompt itself is not. The design move follows from reading these together. The institution is not adding support; it is remaining present as the audience an identity in formation requires.

The two artefacts are not grounded in the same way, and the difference is deliberate. A2 is theoretically anchored: its cadence follows directly from the persistence and mattering literature and from Fogg's prompt model. A1 is empirically anchored: while Ibarra frames it as an identity artefact, its concrete design is shaped less by theory than by two interview inputs - the recruiter's WHY criterion, which defines what the articulation must achieve at first contact, and the training-provider's not-formally-taught competencies list, which defines what the workshop must attend to. The design family therefore draws on theory and on the empirical record at different points rather than uniformly, and this asymmetry is treated as appropriate to what each artefact has to do.

The continuity framing across A1 and A2 reflects this grounding directly. Mattering, in the institutional setting, is not a single act but a maintained presence. The design move is therefore not to add a single post-graduation event but to extend the already-existing pattern of institutional contact across the boundary.

6.3 Artefact 1: the WHY Card

6.3.1 Problem addressed

A1 addresses the gap, evidenced in Q15 to Q16, between an internally clear sense of WHY at the start of studies and a more dispersed self-identity at the point of starting to apply. The gap is not a deficit of motivation. It is an articulation problem, and beneath it an identity one: the participant holds a provisional professional self but has had no institutional setting in which to put it into the language the receiving labour market recognises.

6.3.2 Mechanics

A1 is delivered as a hybrid workshop across the final week of the formal programme, designed to scale to typical kood/Jõhvi cohort sizes (approximately 87 graduates in batch 5). The workshop has three movements. The first surfaces the participant's pre-existing WHY through a structured workbook completed asynchronously, with prompts that ask for the personal, the professional and the labour-market-facing aspects of the rationale. The second translates the participant's articulation into the language a recruiter would recognise. This movement is supported by an LLM scaffolding instrument prompted with the readiness criteria described as the audience target, allowing the language work to scale to cohort size. The third produces the WHY Card itself, a one-pager in the participant's own writing, with a defined structure: the personal motivation, the chosen direction, the evidence that supports the direction, and the articulation suitable for first contact with a recruiter. Movement 3 is conducted live as a brief 1:1 Zoom ratification with the kood/Jõhvi Talent Manager. The live moment is methodologically load-bearing: the institution performs the act of recognition that an LLM cannot, ratifying the WHY Card as institutionally witnessed rather than only personally produced. The institution acting, in Ibarra's terms, as the audience against which the provisional self is tested.

6.3.3 Inputs to the workshop

The workshop draws on three inputs that the institution already holds. The first is the participant's accumulated learning record, which is the practical evidence of capability. The second is the not-formally-taught competencies list surfaced in the training-provider interview, which clarifies what the workshop should attend to (presentation, self-expression and learning strategy). The third is the recruiter's WHY criterion, which functions as the audience target which the WHY Card must satisfy.

Table 6.3.3 A1 inputs and how they shape the workshop

Input source	What it contributes	Where in the workshop it is used
Participant's accumulated learning record (<i>institutional record of project submissions, peer-review activity and module completion across the programme</i>)	Practical evidence of capability. Concrete, time-stamped material the participant can point to when claiming a direction; functions as the antidote to abstract self-description.	Movement 1 (Surface, 25 min) participants draw on the learning record when writing the <i>evidence</i> prompt. Movement 3 (Capture, 30 min) populates Section 3 of the WHY Card ("Evidence: concrete examples; no abstract claims").
Not-formally-taught competencies list (<i>from the training-provider interview: presentation, self-expression, sales of self, stress management, self-care, learning strategy</i>)	The soft-skill register the formal programme does not cover but that the provider has identified as critical for transition success. Names the competencies the audience-translation step is implicitly exercising.	Movement 2 (Translate, 45 min) the list is what the translation step is reaching for; framed in the facilitator's minute-30 input as the competencies the WHY Card has to demonstrate as it lands at first contact.

Recruiter's WHY

criterion (*from the recruiter interview: the candidate's ability to articulate a personal "why" for the career change in the language of the receiving labour market*)

The audience target.

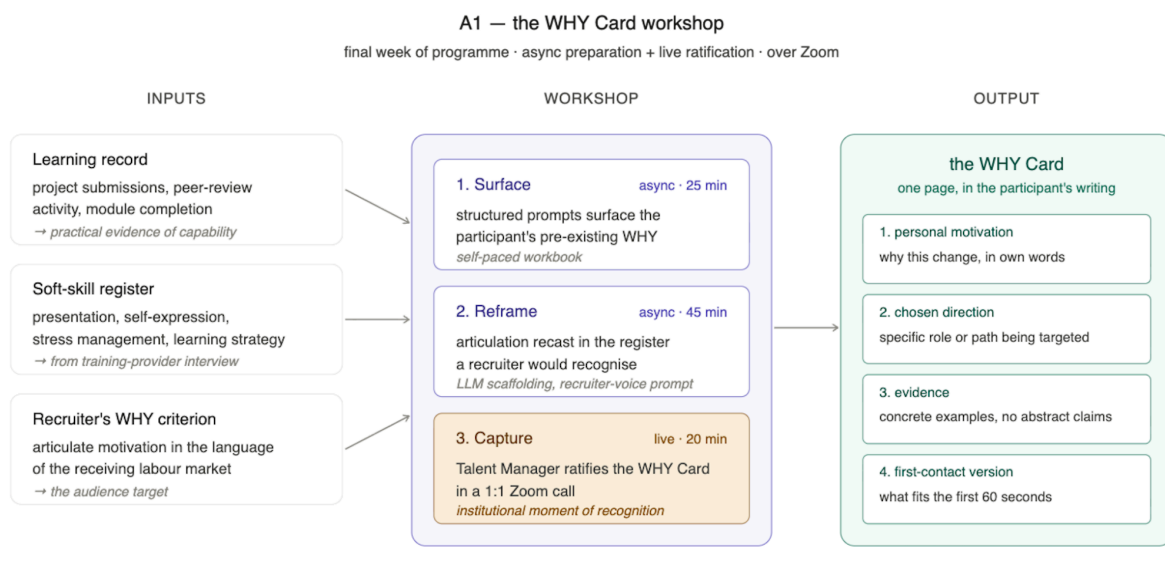
Defines what "good" looks like at first contact and gives Movement 2 an external standard to revise against rather than relying on facilitator preference.

Movement 2 (Translate, 45 min)

the criterion is read aloud to the room as the facilitator's minute-30 input and is the basis for the partner-prompt question used throughout the movement: *"If you heard this in the first 60 seconds of a first interview, would it land?"*

Movement 3 (Capture, 30 min).

Image 6.3.3 WHY Card prototype



6.3.4 Design propositions A1 puts under pressure

A1 puts two design propositions under pressure. The first is that WHY clarity at the moment of graduation is institutionally producible rather than only personally arrived at. The second is that the institution's articulation work, performed once at the end of formal learning, produces an artefact that the participant carries into the application phase as a stable account of the provisional self while it is still being tested.

6.4 Artefact 2: the post-graduation continuity

6.4.1 Problem addressed

A2 addresses the post-graduation gap evidenced in Q13 and Q14. Once formal learning ends, the institution's design surface ends with it. The participant moves into the application phase without the routines and institutional accountability that were present during learning. The gap is not absence of personal efforts, since 17 of 22 batch 5 graduates report self-discipline as the main thing that kept them going. The gap is absence of institutional presence. A2 occupies that absence with a low-touch, structured cadence that signals continued institutional attention without redesigning the participant's application activity.

6.4.2 Mechanics

A2 is delivered as an email-only cadence at three structured waypoints across a four-week window, namely week 0 (immediately following graduation), week 2 (mid-pilot) and week 4 (close of pilot). The cadence is calendar-driven from a designated institutional address. Each waypoint message is anchored to the participant's WHY Card from A1.

Table 6.4.2 A2 waypoints and measurement

Waypoint	Content and intent	How A1's WHY Card anchors in	Measurement function
Week 0 <i>(immediately after graduation)</i>	Institutional acknowledgement that the participant has graduated and that the cadence is now active. Frames graduation as a transition rather than a completion event. Opens the four-week envelope in the same register in which it will close.	Confirms institutional receipt of the WHY Card from A1. Asks the participant to copy the <i>first-contact version</i> into the reply - the Card travels into the cadence verbatim at week 0.	First WHY clarity self-rating on the 1–5 scale plus the verbatim first-contact paragraph. Sets the within-participant baseline against which weeks 2 and 4 are read.

Week 2 (<i>midpoint</i>)	Maintains presence during the part of the four-week window in which silent fade is most likely to set in. Invites participants to record what is happening rather than to perform progress; explicitly authorises naming felt isolation.	Re-reads the WHY Card and asks the participant to revise the first-contact paragraph if it has shifted since week 0. Treats the Card as a living document that the application phase is editing.	Second WHY clarity self-rating; revised free-text articulation; short paragraph on application activity (numbers + one surprising observation) and felt isolation. Application velocity recorded as observed-but-not-claimed.
Week 4 (<i>close of pilot</i>)	Closes the cadence in the same register in which week 0 opened it: a maintained presence rather than a finished event. Offers a follow-up conversation in person if the participant wants one. Frames the WHY-revisited articulation as continuation, not evaluation.	Final pass over the WHY Card. Participant submits the version of the first-contact paragraph they would now use, with all four weeks of application-phase reality factored in.	Third (final) WHY clarity self-rating; final free-text articulation; free-text on what the institution should learn from the participant's experience of the cadence. First-interview time recorded if reached.

Image 6.4.2 The post graduation continuity: inputs and effects

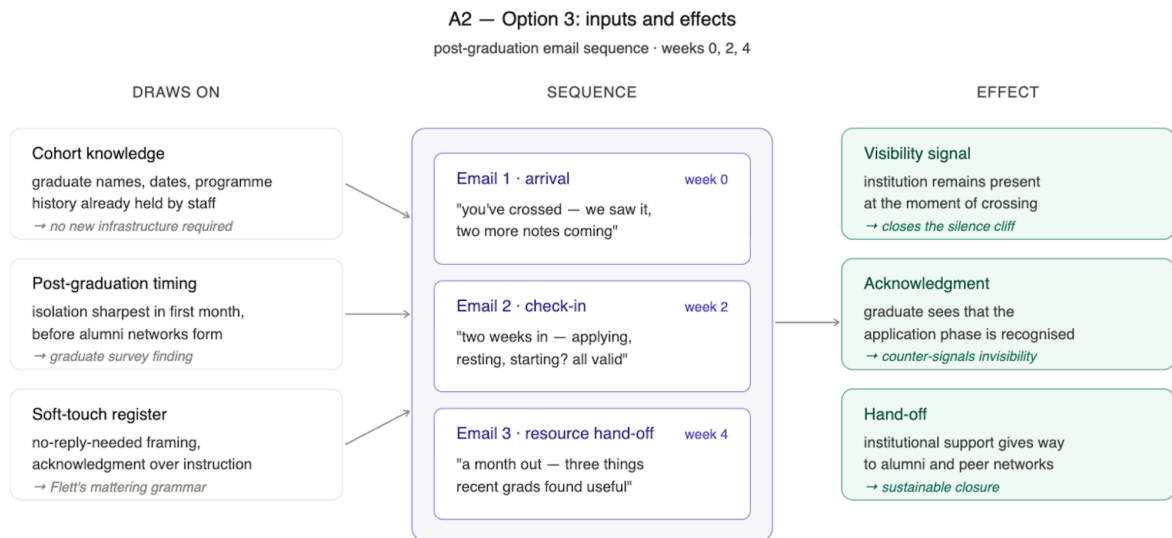


Image 6.4.2 The post graduation continuity: content view

A2 - Option 2: content view
three emails as the cohort might receive them

EMAIL 1 · week 0 arrival	EMAIL 2 · week 2 check-in	EMAIL 3 · week 4 resource hand-off
From: kood/Jöhvi To: [graduate name] Subject: you've crossed Hi [name], You finished. Congratulations! The next stretch is the part most graduates say is hardest. We're here to support. Keep going! - Talent Manager intent: break the silence cliff name what's next	From: kood/Jöhvi To: [graduate name] Subject: two weeks in - how's it going? Hi [name], You're two weeks past graduation. No reply needed. Just checking in: applying, interviewing, resting, starting? All valid. If you want to talk, reply. If not, see you in two weeks. - Talent Manager intent: acknowledge the application phase no-pressure response window	From: kood/Jöhvi To: [graduate name] Subject: a few things that might help Hi [name], A month out. Wherever you are in the process, here are three things our recent grads found useful: - alumni LinkedIn - recruiter intro requests - check this internship opportunity - Talent Manager intent: offer concrete next-step resources hand off to alumni network

6.4.3 Cadence content

The week 0 email acknowledges graduation, confirms institutional receipt of the WHY Card, and supplies the first measurement prompt. The acknowledgement is the institutional-presence signal; the first measurement prompt asks the participant to self-rate WHY clarity on the five-point scale and to supply a short free-text articulation. The intent of week 0 is to mark the boundary as a transition rather than as a completion.

The week 2 email provides a mid-check. It invites the participant to revisit the WHY card, to record any application activity and any felt isolation since graduation and to supply the second measurement prompt. The intent of week 2 is to keep the institutional presence active during the part of the four-week window in which silent fade is most likely to set in.

The week 4 email closes the pilot. It provides a brief institutional acknowledgement of the four-week passage, invites the participant to a WHY-revisited self-identity and supplies the third and final measurement prompt. The intent of week 4 is to close the pilot in the same register in which it was opened - a maintained presence.

6.4.4 Design propositions A2 puts under pressure

A2 puts three design propositions under pressure. The first is that mattering signals can be carried through low-touch institutional contact. The second is that institutional extension across the boundary is achievable at low operational cost without redesigning the programme itself. The third is that the continuity, in which A2 behaves as the natural step of the programme pattern, rather than a new intervention, reduces the felt rupture of graduation.

6.5 Pilot design

The pilot is bounded as a four-week Wizard-of-Oz study. A1 runs as a facilitated workshop on paper; A2 runs as a manual email cadence operated by the researcher. Both fidelities sit below what an institutional rollout would deploy at scale, on the basis that the pilot's purpose is to surface the next iteration rather than to evaluate a finished product.

Pilot participants are drawn from the 18 batch 5 graduates who rated the application phase as much harder than learning in Q13. This subset represents the population for whom the design problem is most acutely visible in the data. Recruitment is by opt-in invitation through the institution's existing communication channel.

The pilot uses email as the channel for A2. Discord is excluded because it is associated with the in-programme experience and does not function as a post-graduation channel for kood/Jõhvi alumni; Slack is excluded on operational cost. Email removes platform-adoption friction during the four-week window and lets the artefact effect be observed. Longer-term institutional design is likely to need a different channel, and this is named here as a scoping choice rather than a recommendation against alternatives.

The primary outcome is WHY clarity, measured at three within-participant waypoints (week 0, week 2 and week 4). At each waypoint, participants self-rate WHY clarity on a five-point scale and provide a short free-text articulation in the language they would use at first contact with a recruiter. The five-point ratings produce a per-participant trajectory; the free-text articulations are coded for clarity and audience-fit. Application velocity (applications per week) and first-interview time (days from graduation to first interview) are recorded at the same waypoints as observed.

The researcher operates the cadence and codes the responses from inside kood/Jöhvi. This trades against operational feasibility inside the thesis timeline; the practitioner stance is grounded in 4.2 and named here as a deliberate choice.

6.6 Ethics of the design work

Participation is voluntary, opt-out signalled at every waypoint, no institutional consequence. The invitation is therefore worded as an opportunity to make clear that participation is not framed as less-capability. Opt-out at any point is signalled at every waypoint and non-participation carries no institutional consequence.

The dual role of the researcher as practitioner is disclosed to participants at recruitment. Participants are informed that the institutional address from which the cadence is sent is operated by the researcher and that responses will be used for both the design account in this thesis and possible institutional iteration of the artefacts.

Sensitivity to the sample's reported difficulty is built into the emails clearly. The week 2 prompt deliberately invites participants to record application activity and felt isolation rather than to perform progress and the week 4 prompt frames the WHY-revisited as continuation rather than evaluation.

7. Conclusions

7.1 Answers to the research questions

This thesis posed three research questions. Each is answered here in concise form, with reference to the chapters in which the underlying argument is developed.

RQ1: What patterns characterise dropout and post-graduation transition difficulty among learners at kood/Jõhvi?

Across 38 dropout cases collected between 2023 and 2026, exits take the shape of gradual drift rather than rupture: no respondent described their exit as the result of a single decisive moment, while the majority used the language of drift, gradual disengagement or unfolding circumstance. Exits concentrate in the central phase of formal learning, with 29 of 38 leaving between the second and twelfth month of the main programme. Uncertainty about whether the transition would succeed is the most widely identified entry-stage risk, named by 27 of 38.

Across 22 graduate cases collected from batch 5 in early 2026, the application phase is rated as much harder than learning by 18 of 22 respondents. Nearly one third of the cohort (7 of 22) report that nothing has helped them in that phase. Self-articulation of personal WHY is broadly present at the start of studies but more dispersed at the moment of beginning to apply, indicating that what weakens at the boundary is articulation rather than motivation. The most-requested change at the institutional level is more guidance during learning (7 of 22), followed by more job-search support (5 of 22).

The two datasets together evidence a pattern in which institutional design surface ends earlier than the learner's transition.

RQ2: How can institutional design surface be extended across the learning to labour boundary to reduce silent fade?

Through a paired design family of two artefacts.

A1 is a final-week WHY Card workshop, delivered in person and in cohort, that produces a structured, audience-translated articulation of the participant's personal rationale for the career change. The artefact is anchored to the not-formally-taught competencies

surfaced in the training-provider interview and to the recruiter's stated readiness criterion. The output is a one-page WHY Card in the participant's own writing.

A2 is a post-graduation continuity layer delivered as a four-week email cadence at week 0, week 2 and week 4. Each waypoint is anchored to the participant's WHY Card from A1 and signals continued institutional presence through low-touch, structured contact.

Together, A1 and A2 extend the institution's existing pattern of structured contact across the boundary at which it currently stops, at low operational cost.

RQ3, interpretive: What does the resulting design family reveal about the relationship between institutional mattering and successful career transition?

The design work reveals three propositions about institutional mattering as a design resource.

First, mattering is rhythm rather than event. Sustained low-touch presence produces the felt experience of being noticed, of having one's continued participation be of consequence, that one-off provision cannot. The cadence-based architecture of A2 encodes this insight directly.

Second, surface extension is institutional pattern extension rather than new programme provision. A1 reuses an articulation form already informally present in the institution; A2 reuses a channel already operational during studies. The novelty of the design family lies in the structural extension of existing patterns across the boundary, not in the introduction of new ones.

Third, the recruiter's readiness criterion can function as a cross-actor anchor between the labour market and the institution. Where the institution produces the articulation artefact that the labour market evaluates at first contact, friction at the boundary is reduced directly rather than through proxy outputs.

Fourth, institutional mattering and identity adaptation are, at the boundary, the same resource described from two sides. What the persistence literature calls institutional presence is, in Ibarra's terms, the audience a provisional professional self requires in order to be tested. The design family makes this concrete: A1 produces the articulation of that self, A2 keeps the institution present as its audience. The interpretive yield of the work is that successful career transition depends not only on the learner's readiness but on whether the institution remains an audience for the identity the learner is still forming.

7.2 Contributions

The thesis offers contributions on four registers.

The empirical contribution consists of two closed-cohort datasets describing dropout and graduate experience at a single Estonian intensive reskilling institution, with patterns that are situated rather than generalisable but structurally informative for the broader reskilling category. The most consequential single finding is that 18 of 22 batch 5 graduates rate the application phase as much harder than learning, against 4 who rate it much easier.

The theoretical contribution is to connect two bodies of work that rarely engage each other - the higher-education persistence literature (Tinto 1993; Strayhorn; Flett 2018) and the career-transition literature (Schlossberg 1981; Savickas 2005; Ibarra 1999, 2003) - and to specify identity adaptation as the mechanism at which they meet. The persistence literature explains why institutional presence reduces disengagement; the identity strand explains what that presence is *for* at the boundary - sustaining an audience for a provisional professional self. The thesis does not propose a new theory. It argues that the learning-to-labour boundary is where these literatures become one account, and that this account is productively worked through design rather than through further theorising.

The methodological contribution is the demonstration that Research through Design (Frayling; Zimmerman, Forlizzi and Evenson 2007) is defensible as the governing paradigm for an MA thesis at the boundary of social-science and information-systems traditions, supported by Jobs-to-be-Done coding (Christensen et al., 2016), thematic analysis (Braun and Clarke) and the embedded-practitioner stance (Schön, 1983). The thesis offers this methodological stack as a usable template for adjacent practitioner-researcher work in reskilling design.

The practical contribution is the design family A1 and A2, to be implementable by another reskilling institution with structural similarity to kood/Jõhvi. The artefacts are deliberately understated, in the judgement that what is missing at the boundary is institutional presence rather than institutional intensity.

7.3 Practical implications

For kood/Jõhvi, the immediate implication is operational. The four-week pilot of A2 is feasible at the institution's current scale and does not require structural reform of the

programme. The A1 workshop fits inside the existing final-week period without displacing other content, and the email cadence fires from a designated address that the institution already operates. Whether the institution chooses to extend the four-week envelope, enrich the channel or scale the cadence to the full graduate cohort are design questions for subsequent iteration.

For other reskilling institutions, the implication is conditional on structural similarity. Where an institution operates a cohort-based intensive programme that ends at graduation, the persistence literature suggests that disengagement risk continues past that point and that institutional design surface can be extended into the post-graduation phase at low cost. The size and shape of the extension are likely to vary by institution.

For individual learners undergoing career transition, the implication is that the articulation problem they may be experiencing at the application phase is plausibly an institutional design problem rather than a personal deficit. WHY clarity, in the form the labour market evaluates at first contact, is institutionally producible and need not be performed alone.

7.4 Limitations

The empirical scope is single-institution. Patterns are situated at kood/Jõhvi and are not formally generalisable. Adjacent reskilling institutions can read the findings as informative through structural similarity, not as transferable through demonstrated replication.

The two cohort datasets cover different windows. The dropout dataset spans 2023 to 2026; the graduate dataset is restricted to batch 5. Within-cohort direct comparison is not available, and the two datasets are treated as complementary rather than as a paired panel.

The pilot of A2 is within-participant only. No between-group comparison is included. Under the Research through Design paradigm this is consistent with the methodology, but reviewers from a more experimental tradition may press on it.

The practitioner stance is methodologically productive on the design side and constrains the validation side. The findings are inseparable from the practitioner perspective through which they were generated.

7.5 Future work

Three directions of future work follow directly from the limitations this thesis declares.

The first is longitudinal follow-up of the pilot beyond the four-week window. The thesis measures WHY clarity at three within-participant waypoints but treats first-interview time as observed rather than as a statistical claim. A six- or twelve-month follow-up would allow the labour-market outcome to be read against the WHY clarity trajectory, which would address the proxy-versus-outcome question that the present design surfaces but does not close.

The second is cross-institutional replication. The patterns reported here are situated at kood/Jõhvi and the case-based design does not support generalisation. Replication at one or two comparable intensive reskilling institutions would test whether the silent-fade pattern and the institutional-presence response travel beyond the present case, and would address the single-case limitation named in 4.9 and 7.4.

The third is the full incorporation of the employer voice as a foundational rather than additive actor. The two recruiter interviews carry direct employer perspective, but the thesis treats employer voice as additive for methodological reasons set out in 4.4.3. Subsequent work could move employer perspective to the foundational position and triangulate it with the learner and institutional perspectives reported here. This direction has analytic weight beyond methodological tidiness: 5.5.3 names identity risk as the under-attended pattern at the boundary, and a foundational employer reading is the route through which that risk could be characterised at scale rather than at recruiter-interview scale.

7.6 Closing statement

The career transition that this thesis has examined is, in its specific case, the move from formal reskilling to first technology employment at a single Estonian institution. In its more general form it is the transition that a substantial share of the contemporary workforce is expected to undertake one or more times across their working lives. The thesis suggests that what reskilling institutions design and what learners need at the boundary between learning and labour are not yet aligned. It offers, as one response to that misalignment, a design family that extends institutional mattering across the boundary at which the institution currently stops. Whether the design move scales,

whether it generalises and whether it produces the labour-market outcome it is calibrated toward are questions that the work begun here invites others to take further.

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Appendix A

Participant Register

A.1 Purpose and structure of this appendix

This appendix records the participants whose data the thesis uses. It supports 4.4.2 (Semi-structured interviews), 4.5 (Participants and sampling), and 5.2–5.4 (Empirical findings), and is the document against which any in-text identifier (D-01, G-01, T-1, R-2, and so on) can be checked.

The thesis uses four identifier prefixes. D refers to dropout-survey respondents (n = 38). G refers to graduate-survey respondents (n = 22). T refers to training-provider interviewees (n = 2). R refers to recruiter interviewees (n = 2). D and G are survey identifiers and therefore have no interview length; T and R are interview identifiers and the corresponding interview metadata is reported in A.4.

All free-text fields collected during the surveys (age, gender, employment status, exit stage) have been standardised into category labels for this register. Original verbatim values are preserved in the underlying datasets archived as Appendix D (D.1 Dropout responses, D.2 Graduate responses) and are available for inspection on request.

Participation in all four streams was voluntary. Survey respondents gave consent at the point of submission; interview participants gave consent at the point of recording. Identifiers were assigned at the point of storage to support anonymisation in the body of the thesis. The data-handling and deletion procedure is reported in Appendix M.

A.2 Dropout-survey register (D-01 to D-38, n = 38)

The dropout cohort covers participants who left kood/Jõhvi between 2023 and 2026 across multiple cohorts, in line with the case-bounding statement in 4.3. Aggregate descriptive statistics for this cohort are reported in 5.2.1 (mean age 29.6, gender split 24 male / 14 female) and the exit-stage distribution is reported in 5.2.3.

ID	Age	Gender	Employment status at entry	Exit stage
D-01	31	M	Employed full-time	Months 2–12 of main programme
D-02	19	M	Freelancer	Months 2–12 of main programme
D-03	27	M	Employed full-time	Months 2–12 of main programme
D-04	28	F	Unemployed	Months 2–12 of main programme

ID	Age	Gender	Employment status at entry	Exit stage
D-05	38	F	Parental leave	Months 2–12 of main programme
D-06	22	M	Unemployed	Months 2–12 of main programme
D-07	38	M	Entrepreneur / self-employed	Months 2–12 of main programme
D-08	25	M	Employed full-time	Months 2–12 of main programme
D-09	29	M	Employed full-time	After month 12 of main programme
D-10	22	F	Employed full-time	Months 2–12 of main programme
D-11	25	F	Unemployed	After month 12 of main programme
D-12	39	F	Employed full-time	Months 2–12 of main programme
D-13	27	F	Employed full-time	Months 2–12 of main programme
D-14	28	F	Unemployed	Months 2–12 of main programme
D-15	48	F	Employed part-time	Months 2–12 of main programme
D-16	39	F	Employed full-time	Months 2–12 of main programme
D-17	24	M	Unemployed	Months 2–12 of main programme
D-18	23	F	Employed full-time	Months 2–12 of main programme
D-19	25	M	Employed full-time	Months 2–12 of main programme
D-20	21	M	Unemployed	Months 2–12 of main programme
D-21	18	F	High-school student	Months 2–12 of main programme
D-22	43	M	Unemployed	Months 2–12 of main programme
D-23	23	F	Employed full-time	First months / Selection Sprint
D-24	33	M	Employed full-time	Months 2–12 of main programme
D-25	31	M	Employed full-time	Months 2–12 of main programme
D-26	25	M	Entrepreneur / self-employed	Months 2–12 of main programme
D-27	20	F	Unemployed	After month 12 of main programme
D-28	50	M	Freelancer	After month 12 of main programme
D-29	35	M	Employed full-time	Months 2–12 of main programme
D-30	27	M	Unemployed	After month 12 of main programme
D-31	29	M	Employed full-time	Months 2–12 of main programme
D-32	31	M	Employed full-time	Months 2–12 of main programme
D-33	28	M	Entrepreneur / self-employed	Months 2–12 of main programme
D-34	43	M	Employed full-time	Months 2–12 of main programme

ID	Age	Gender	Employment status at entry	Exit stage
D-35	29	F	Employed part-time	After month 12 of main programme
D-36	26	M	Employed full-time	First months / Selection Sprint
D-37	29	M	Employed full-time	Months 2–12 of main programme
D-38	25	M	Employed full-time	First months / Selection Sprint

A.3 Graduate-survey register (G-01 to G-22, n = 22)

The graduate cohort is restricted to batch 5, which graduated in early 2026. Of the 87 batch-5 graduates, 22 returned the survey, yielding a 25.3% within-cohort response rate (5.1, 5.3.1). Aggregate descriptive statistics in 5.3.1 (mean age 27.1, gender split 17 male / 5 female).

ID	Age	Gender	Employment status at entry
G-01	21	M	Employed part-time
G-02	25	M	Unemployed
G-03	19	F	Unemployed
G-04	34	M	Self-employed
G-05	21	M	Left work to study
G-06	20	M	Unemployed
G-07	37	M	Employed full-time
G-08	31	M	Unemployed
G-09	24	F	Unemployed
G-10	23	M	Self-employed
G-11	21	M	Employed full-time
G-12	20	F	Unemployed
G-13	41	M	Employed full-time
G-14	19	M	All except parental [ambiguous]
G-15	24	M	Employed full-time
G-16	40	M	Unemployed
G-17	29	M	Unemployed
G-18	32	M	Employed full-time
G-19	25	F	Unemployed
G-20	31	M	Unemployed
G-21	31	M	Employed full-time
G-22	28	F	Employed full-time

A.4 Interview register (T-1, T-2, R-1, R-2)

Four semi-structured interviews were conducted to triangulate the survey findings, in line with 4.4.2. Two interviews were with training providers, one internal to kood/Jõhvi and one external; two interviews were with technology recruiters active in entry-level hiring in Estonia. Interview guides are reported in Appendix C (C.2 Training-provider guide; C.3 Recruiter guide).

Date of interview, length in minutes and mode (in person or online) are recorded against each participant from the researcher's own interview log. Where these fields are marked as "[insert]" below, the value is to be entered from that log before submission. Average length across the four interviews is reported in 4.4.2 as approximately forty minutes.

ID	Role	Organisation type	Date of interview	Length (min.)	Language	Mode
T-1	Head of training centres	The case institution	12.02.26	55	English	in person
T-2	Trainer	External training provider	05.02.26	38	English	in person
R-1	Tech recruiter	Technology employer	16.03.26	49	English	in person
R-2	Tech recruiter	Technology recruitment agency	04.03.26	45	English	in person

A.5 Cross-reference of in-text identifiers

The body of the thesis cites the following participant identifiers verbatim. Each is listed below with the section in which it first appears, to make the trail from claim to source traceable.

Identifier	Role	Sections in which the identifier is cited
D-01	Dropout-survey respondent	5.2.4 (programme-vs-circumstance attribution); 5.2.5 (recommendation: "more human support")
D-02	Dropout-survey respondent	5.2.5 (recommendation: "some support people in each batch...")
D-03	Dropout-survey respondent	5.2.4 ("It was all circumstance")
D-05	Dropout-survey respondent	5.2.4 ("I would say 20:80"); 5.2.5 ("I really did not find the thing that remotely worked")
D-06	Dropout-survey respondent	5.2.5 ("take some more time to introduce students to the programme")
D-07	Dropout-survey respondent	5.2.4 ("discord has to be always supportive...")

Identifier	Role	Sections in which the identifier is cited
T-1	Head of training centres, kood/Jõhvi	5.4.2 ("OK"/"NOT OK" competency taxonomy); 6.3.3 (input to A1: not-formally-taught competencies list)
R-2	Tech recruiter	5.4.3 ("...the spark, the will, and the WHY..."); 6.3.3 (input to A1: recruiter WHY criterion)

A.6 Consent and data-handling note

Survey respondents (D and G) gave consent at the point of submission and were informed that aggregate and anonymised individual responses would be used in the thesis. Interview participants (T and R) gave informed consent at the point of recording, were informed that quotations would be reported anonymously by role identifier, and were told that recordings and transcripts would be retained by the researcher for the duration of the thesis work and deleted at its close. The full consent texts are reproduced in Appendix F. Data-handling and deletion procedures are reported in Appendix M.

Appendix B

Survey Instruments

B.0 Purpose and structure of this appendix

This appendix reproduces the two cohort-survey instruments used in the empirical work, in full and in the order in which the questions were presented to respondents. It supports 4.4.1 (Quantitative surveys) and is the document against which any Q-number citation in 5.2 (dropout findings) and 5.3 (graduate findings) can be verified. Verbatim response data is archived in Appendix D (D.1 Dropout responses; D.2 Graduate responses); the participant register that links responses to identifiers is Appendix A.

Both surveys were administered online via Google Forms. Demographic items appeared first, followed by the numbered survey questions. The dropout instrument (B.1) carries fourteen substantive items, Q1 to Q14, plus four demographic items and one optional contact field. The graduate instrument (B.2) carries eighteen substantive items,

numbered Q3 to Q20, plus two demographic items (which the original instrument numbered Q1 and Q2 implicitly as "age" and "gender" and which therefore do not appear as separate Q-numbers in the body of the thesis); the Q-number sequence in B.2 is preserved as it appears in the deployed instrument so that all in-text citations in 5.3 match.

Questions are reproduced verbatim. Where the original instrument used multi-select, single-select or scale formats, the response options are listed in full beneath the question text. Where an instrument item was free-text, this is stated. Items that the body of the thesis does not draw on directly are nevertheless included, on the principle that the appendix records the instrument as deployed rather than the instrument as analysed.

All participants gave consent at the point of submission. Consent texts are reproduced in Appendix F. Anonymisation was applied at the point of storage (4.8); identifiers (D-01 to D-38, G-01 to G-22) were assigned in Appendix A.

B.1 Dropout survey instrument (2023–2026, n = 38)

Title of the deployed instrument: "kood/Jõhvi dropout experience research." The instrument was open to participants who had left kood/Jõhvi between 2023 and 2026, across multiple cohorts. Submission was voluntary and respondents were able to skip any item without consequence. The dropout instrument was deployed in English; one item received a response in Estonian and is preserved verbatim in the dataset.

B.1.1 Demographic and exit-timing items

Item A. Your age at the time of the studies?

Format: Numeric free-text (years).

Item B. Your gender at the time of the studies?

Format: Single-select.

Response options:

- Male
- Female

Item C. Your employment status at the time of the studies.

Format: Single-select with free-text option.

Response options as recorded:

- Employed full-time
- Employed part-time
- Unemployed

- Freelancer / project-based work
- Entrepreneur
- High-school student
- Other (free-text; respondents recorded e.g. “Lapsehoolduspuhkusel” / parental leave; entrepreneur with own business)

Item D. When did you leave the studies @ //kood?

Format: Single-select.

Response options:

- During the first months (including Selection Sprint)
- Between 2–12 months of main programme
- After 12 months of main programme

B.1.2 Substantive items (Q1–Q14)

Q1. What originally led you to pursue a career change into tech field?

Format: Open-text (long answer).

Q2. How did you find the course?

Format: Single-select.

Response options:

- Online advertisement
- Friend recommendation
- Searched myself

Q3. What kind of personal risks were involved with this career change?

Format: Multi-select with free-text option; respondents could select multiple categories or write their own.

Closed response options recorded in the dataset:

- Uncertainty (I did not know if this will work out)
- Financial (I had to quit job or reduce income or use my savings)
- Parenting (I have children)
- None / no risks
- Other (free-text; respondents recorded e.g. “lack of time,” “discomfort,” “wasn't sure I was going to change career”)

Q4. What did you expect the process to be like at the beginning?

Format: Open-text (long answer).

Q5. What surprised you in those first weeks: about the content, the environment, or yourself?

Format: Open-text (long answer).

Q6. What was it about the very beginning that felt like too much: was it the content, the pace, the environment, or something else entirely?

Format: Open-text (long answer); respondents could indicate one or multiple of the prompts in the question stem.

Q7. Was it a single moment that made you stop, or did you simply drift away from it fairly quickly?

Format: Open-text (long answer); the question stem implicitly contrasts a “single moment” and a “drift” framing.

Q8. What were the main reasons: were they mostly about the program itself, or things happening in your life outside it?

Format: Open-text (long answer); respondents apportioned attribution between the programme and life circumstances.

Q9. Looking back, is there anything that could have changed your decision?

Format: Open-text (long answer).

Q10. From what you experienced - did you get any sense of whether the training would have prepared you for actual work?

Format: Open-text (long answer).

Q11. Based on your experience, however brief, if one thing could be changed to help people to get further, what would it be?

Format: Open-text (long answer).

Q12. Are you still thinking about a career change, or has your direction shifted since then?

Format: Open-text (long answer).

Q13. Looking back now, how do you define whether the experience was worth it?

Format: Open-text (long answer).

Q14. What would you tell someone who is in the same position you were in before you started?

Format: Open-text (long answer).

B.1.3 Optional contact item

Item E (optional). I am willing to be contacted by email to specify an answer which may have created more questions.

Format: Free-text (email address) or refusal.

B.2 Graduate survey instrument (Batch 5, 2026, n = 22)

Title of the deployed instrument: "kood/Jõhvi graduate experience research, Batch 5." The instrument was open to graduates of Batch 5, which graduated in early 2026. Of 87 graduates, 22 returned the survey, yielding a 25.3% within-cohort response rate (5.1, 5.3.1). Submission was voluntary and respondents were able to skip any item without consequence. The graduate instrument was deployed in English.

The Q-number sequence in this instrument begins at Q3 because Q1 and Q2 are the two demographic items below (age and gender). The numbering is preserved so that all Q-references in the body of the thesis (5.3.2 to 5.3.9) match.

B.2.1 Demographic items

Q1 (demographic). Your age when you started in kood/Jõhvi?

Format: Numeric free-text (years).

Q2 (demographic). Your gender at the time of the studies.

Format: Single-select.

Response options:

- male
- female

B.2.2 Substantive items (Q3–Q20)

Q3. Employment status when you started in kood/Jõhvi?

Format: Single-select with free-text option.

Response options recorded in the dataset:

- Unemployed
- Employed full-time
- Employed part-time
- Self-employed
- Other (free-text; respondents recorded e.g. "Leaved work for studying," "All from this, but without parental")

Q4. How often did you feel confident you were making real progress?

Format: Open-text with frequency-anchor invited; respondents used a mix of frequency labels ("almost always," "most of the time," "often," "not often") and free-text descriptions.

Q5. Which of the following were you most uncertain about during //kood? Please pick 3.

Format: Multi-select (up to 3 selections).

Response options recorded in the dataset:

- finding a job
- learning the right things
- life circumstances

- keeping up with peers
- financial stability
- code correctness
- whether coding is for me
- team stability

Q6. What actually kept you going? Rank top 3.

Format: Multi-select (up to 3 ranked selections).

Response options recorded in the dataset:

- self-discipline
- personal “why”
- enjoyment of learning
- external support
- financial sunk cost
- peers/teammates
- Other (free-text; respondents recorded e.g. “Taltech special admission,” “I don't like to be a quitter”)

Q7. How well did //kood's self-directed pedagogy fit your personal learning style?

Format: Open-text (long answer).

Q8. What is one skill //kood doesn't formally teach, but that was critical for you to succeed?

Format: Open-text (short answer).

Q9. Did any of these happen during your time at //kood?

Format: Multi-select.

Response options:

- job change
- financial crisis
- health issue
- relocation
- family/caregiving change
- none

Q10. How close did you come to quitting because of a life event?

Format: Single-select.

Response options:

- not at all
- nearly quit

Q11. How confident you feel about employment in tech?

Format: Single-select.

Response options recorded in the dataset:

- Already employed

- Employed in non-tech, looking to transfer
- should be doable in 3 months time
- it may take 6+ months
- probably more like 6 months

Q12. How many applications have you already sent?

Format: Numeric free-text; respondents could record a count or a short qualifying statement.

Q13. Emotional difficulty of job-application phase vs. learning phase.

Format: Single-select.

Response options:

- much harder
- much easier

Q14. What has helped you most in the application phase? Select up to 3.

Format: Multi-select (up to 3 selections).

Response options recorded in the dataset:

- portfolio
- AI tools
- //kood career workshops
- //kood staff
- alumni network
- external mentor
- rejection feedback
- recruiters
- nothing

Q15. How clear was your personal “WHY” for the career change when you STARTED //kood?

Format: Open-text; respondents used a mix of clarity labels (“very clear,” “quite clear,” “somewhat,” “hazy”) and free-text descriptions.

Q16. How clear was it when you STARTED APPLYING for jobs?

Format: Open-text (paired with Q15).

Q17. You most probably moved from being experienced in your previous field to a “junior” in tech. What surprised you most about that transition, emotionally or practically?

Format: Open-text (long answer).

Q18. How worth-it was //kood, in retrospect?

Format: Open-text (long answer).

Q19. If you could change ONE thing about //kood, what would it be?

Format: Single-select with free-text option.

Response options recorded in the dataset:

- more guidance during learning
- more job-search support
- curriculum changes
- transparent employment data
- flexibility for life events
- Other (free-text; respondents recorded e.g. “mentors who work in tech,” “better team formation,” “structured application support”)

Q20 (optional). I'm open to be contacted for a 20-min follow-up interview. Please insert email.

Format: Free-text (email address) or refusal.

B.3 Instrument design notes

B.3.1 Item design and review

Both instruments combine closed-response items, scale or anchor ratings, and short open-text fields, in the standard practice for retrospective survey research (4.4.1). Item design followed Bradburn, Sudman and Wansink's (2004) guidance on retrospective and self-report items, and Saunders, Lewis and Thornhill's (2019) framing of cohort-survey design. Both instruments were reviewed for face validity by the researcher's supervisor before deployment.

The dropout instrument is more open-text than the graduate instrument by design: the question of why a participant left the programme is treated as a narrative rather than as a categorical fact, and the survey is therefore weighted toward longer free-text items that elicit how the exit unfolded (Q4 to Q11). The graduate instrument is more closed-response by design: most items map directly onto the descriptive frequencies reported in 5.3, and the closed format supports the within-cohort comparison reported in 5.3.5.

B.3.2 Limitations of the instrument design

Three limitations of the deployed instruments are acknowledged here and re-stated in 4.9.

First, several items in the graduate instrument that the body of the thesis treats as ordinal (Q4 confidence; Q15 and Q16 WHY clarity) were deployed as open-text rather than as a constrained Likert-style scale. Responses are therefore not reducible to a single ordinal scale and the body reports them coded across the dataset rather than as numerical means.

Second, Q11 (graduate) on confidence about employment was deployed with five response options, two of which ("it may take 6+ months" and "probably more like 6 months") overlap in scope. The two options are reported separately in 5.3.6 in line with the deployed instrument; if combined, the "6 months or more" category would total seven of twenty-two.

Third, both instruments draw on closed-population sampling rather than probabilistic sampling. Findings should be read as situated within the kood/Jõhvi context (4.9) and not as generalised claims about reskilling more broadly. The within-cohort response rate of 25.3% on the graduate instrument is a separate constraint and is reported as such in 5.1.

Appendix C

Interview Guides

C.0 Purpose and structure of this appendix

This appendix reproduces the semi-structured interview guide that informed the four interviews reported in 5.4. It supports 4.4.2 and is the document against which the interpretive moves in 5.4.1.

The guide was designed as a single instrument with role-tailored variants per question, rather than as two separate guides. This structure was deliberate: it was intended to elicit comparable themes across the two role categories (training providers and recruiters), so that each theme can be read as a parallel pair. The instrument is therefore presented below in a two-column layout, with the training-provider prompt in the left column and the recruiter prompt in the right column for each question. Where a variant exists in only one column (because a theme is meaningful for only one role), the other cell is left as a dash.

The instrument was structured into ten thematic sections, organised as a funnel from context-setting questions to specific signals and finally to systemic recommendations. The funnel structure is preserved below.

An earlier draft of the master instrument carried two further variants intended for direct learner interviews: variant A (in Estonian, intended for in-progress learners) and variant B (in English, intended for completed switchers). Both variants were discontinued before deployment, in line with the methodology decision reported in 4.4.2 to source the learner perspective from the two cohort surveys (4.4.1) rather than from a third interview stream.

All four interviews were conducted in English. The interviewer used the printed guide as a flexible scaffold rather than as a script, in line with standard practice for semi-structured interviewing (Saunders, Lewis and Thornhill, 2019); follow-up probes were used to deepen specific responses where the topic invited it. Interviews were audio-recorded with consent and transcribed for analysis as set out in 4.6.2. Average length across the four interviews is reported in 4.4.2 as approximately forty minutes.

C.1 Interview guide (training providers and recruiters)

Title of the deployed instrument: “kood/Jõhvi career-change boundary research, master interview guide.”

1. CONTEXT

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
<i>Q1. The Decision Moment</i>		

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
1	What was the specific situation that led you to start offering this training?	What led your company to start considering career changers as candidates - was there a specific trigger?
Q2. Your Role and Experience with Career Change		
2	Describe your role in preparing career changers.	Describe your role in recruitment and your position on career changers? What percentage comes from inside vs. outside the field?

2. TRAINING CHOICE

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
Q2.1 Training Choice		
2.1	How do career changers typically find your training, and what factors do you think they weigh most?	When evaluating career changers as candidates, what role does their training provider play in your assessment?
Q2.4 Finance		
2.4	What funding sources do your learners typically use - and what financial barriers most commonly prevent people from starting or completing the program?	Are you aware of how much career changers typically invest financially to make this transition and does that factor into how you view them as candidates?

3. READINESS (MAIN THEME)

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
Q3. When is a career changer "ready enough" to apply?		
3	How do you assess learner readiness?	How do you recognise it? What are the critical skills or qualities?
Q3.1 The competence gap		
3.1	Where do learners most overestimate what they need to know? Where do they underestimate?	What's your actual bar for "junior ready" and does it match what candidates think it is?
Q3.2 Psychological readiness		
3.2	How much of readiness is psychological vs. technical and how do you support the psychological side?	How can you tell the difference between a genuine skill gap and a confidence gap in a candidate?

4. APPLICATION PHASE

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
Q4. Application process		
4	How do you prepare learners for the application phase specifically?	What does a strong application from a career changer look like to you?
Q5. What happens when a career changer can't find work for a long time?		
5	How does this affect your responsibility as a training provider?	How does a long job search gap affect your assessment of a candidate?
Q6. What keeps a career changer motivated during the application phase?		
6	What does your program currently do to support learners during the application phase, and where do you see the biggest gap?	What advice do you give? (Your big WHY)
Q7. What support would help most during the application phase?		
7	How is this support currently organised?	What support has helped you step into the new role?

5. ASSESSMENT SIGNALS

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
Q8. Which signals most influence the hiring decision?		
8	CV, portfolio, interview, references - rank these by importance and explain your top choice.	CV, portfolio, interview, references - rank these by importance and explain your top choice.

6. RISK

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
Q9. What is the biggest risk for you in a career change?		
9	What is the biggest systemic risk in training career changers?	What is the biggest risk in hiring career changers?

7. WORK CULTURE

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
Q10. What aspects of a new workplace culture require the most adjustment for career changers?		
10	What can't be taught in training?	What does the employer expect from a career changer and what is the reality?

8. RESPONSIBILITY

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
<i>Q11. Where does the training provider's role end and personal responsibility begin?</i>		
11	At what stage does the "gap" appear?	At what stage does the "gap" appear?

9. CONCLUSION

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
<i>Q12. Looking at the whole process: what information or knowledge would have helped you make better decisions at the right time?</i>		
12	At what stage would this have been most critical?	At what stage would this have been most critical?

10. CHANGE

Q	Variant C: Training-provider prompt	Variant D: Recruiter prompt
<i>Q13. If you could change one systemic element, what would it be?</i>		
13	At what stage and why?	At what stage and why?

C.2 Probe and follow-up

The semi-structured format permitted follow-up probes whenever a response invited deeper discussion. Two probe conventions were used consistently across the four interviews and are recorded here for transparency.

First, where a participant offered a categorical statement ("we never do that," "always the portfolio," "that's the deal-breaker"), the interviewer asked for a recent example or a typical case. This probe was intended to surface the pattern behind the statement rather than to challenge the statement itself.

Second, where a participant referred to a category that the master instrument explicitly named (for example "readiness," "junior-ready," "the gap," "the WHY"), the interviewer asked the participant to define that term in their own words before the discussion proceeded. This probe was intended to surface participant-specific definitions rather than to assume that the master-instrument vocabulary mapped directly onto each participant's working language.

Both probe conventions are consistent with Saunders, Lewis and Thornhill's (2019) framing of the semi-structured interview as a method for surfacing participant meaning rather than for confirming a pre-formed framework. The conventions are recorded here so that an examiner can read the empirical findings in 5.4 with the actual interview practice in view.

C.3 Limitations of the interview design

Three limitations of the deployed interview design are acknowledged in 4.9.

First, the interview pool is small ($n = 4$ across the two role categories). The interviews were not intended to support claims about training providers or recruiters in general; their function is to triangulate the survey findings against the institutional and employer-adjacent voices in the kood/Jõhvi context. Findings from the interview stream are therefore reported in 5.4 as illustrative and supplementary to the survey base, in line with the case-study design (4.3).

The recruiter interviews draw on two participants active in the Estonian technology hiring market: one an in-house recruiter at a technology employer (R-1), one a recruiter at a technology recruitment agency (R-2). Both work in entry-level technology hiring, which is the segment relevant to the case, but the perspective is not industry-wide.

Third, the training-provider variant of the master instrument carried questions that are also relevant to the institutional perspective held by the researcher as embedded practitioner (4.9). The reflexivity statement in Appendix K records the steps taken to manage this overlap, including anonymisation of training-provider transcripts at the point of storage and triangulation of any claim from a single training-provider interview against the survey base.

Appendix D

Design Development: Iterations and Artefact Samples

D.0 Purpose and structure of this appendix

This appendix documents the development of the design family A1 and A2 across iterations. Chapter 6 reports *what* the artefacts are; this appendix reports *how they became that*, including concepts that were tried and set aside.

The appendix is organised as follows: D.1 covers the development of A1, the WHY Card; D.2 covers the development of A2, the post-graduation continuity layer; D.3 records design decisions that apply to the family as a whole. Each artefact section moves from early concepts, through intermediate drafts to the final version reported in Chapter 6.

Images are screenshots of working drafts.

D.1 A1 - the WHY Card

D.1.1 Early concepts

A1 began as an existing kood/Jõhvī practice rather than as a designed artefact. The Talent Manager held a 1:1 video call with each learner approximately one month before graduation. The call was a single sitting, facilitated by the Talent Manager, with the institution as witness. The output was internal to the conversation and was not collected. The conversation addressed the learner's personal rationale for the career change but was not yet shaped by an external audience criterion, and was not yet operationalised as scheduled programme content.

Early conceptual work explored what a designed artefact built on top of this practice might look like. Four directions were sketched, one per stakeholder voice in the research - a dropout-led version focused on hard skills and previous-career framing; a graduate-led version foregrounding technical readiness with motivation in support; a recruiter-led version organised around a first-contact paragraph and a signature project; and a training-provider-led version organised around curriculum coverage and peer

network. The four were called *focus cards* in this stage, since none yet had a single organising principle the others did not.

They are documented side by side in Image D.1: focus card

kood/jõhvi · v1 focus card · dropout-led Driver: dropout survey (Q11, Q2 risks). Focused on what dropouts said they lacked. 1 / hard skills acquired list technical skills you now have 2 / what you bring from before previous career, transferable experience 3 / what's next where do you see yourself going	kood/jõhvi · v2 focus card · graduate-led Driver: graduate survey (Q5 uncertainty, Q6 what kept them going). Skills first, motivation in support. 1 / technical readiness stack, tools, projects shipped 2 / target role role you are applying for 3 / what kept you going personal motivation in two sentences
kood/jõhvi · v3 focus card · recruiter-led Driver: R-2 readiness criterion. Soft skills, personal projects, audience-translated. 1 / first-contact paragraph in the language of a first interview 2 / signature project one project you would talk a recruiter through 3 / how you work communication, problem-solving, collaboration	kood/jõhvi · v4 focus card · training-provider-led Driver: T-1 OK/NOTOK competencies. Academic on hard skills, networking on the soft side. 1 / curriculum coverage modules completed, competencies assessed 2 / peer network who you worked with, who would vouch 3 / introductions requested where the alumni network can help

D.1.2 Intermediate drafts

Before: 1:1 Talent Manager video call, single sitting, no collected output, institution as witness only. Four focus card directions sketched but not adopted.

What changed: The conversation produced a written artefact, and the four directions collapsed into one. The Talent Manager continued to guide the call, but the call's purpose

moved from supportive conversation to producing a one-page articulation of the learner's personal rationale, structured in defined sections, in the learner's own writing. The institution moved from witness to ratifier: the act of producing the artefact with the Talent Manager present is what makes it institutionally witnessed rather than only personally produced.

Why it changed: The recruiter's stated readiness criterion (R-2, 5.4.3) names articulation of a personal rationale in the language of the receiving labour market as the discriminating signal at first contact. A conversation cannot travel to a first contact with a recruiter; a written artefact can. The 1:1 call as it stood produced clarity that ended when the call ended. The rename of the artefact from *focus card* to *WHY Card* dates from this iteration and is itself part of the move: R-2's criterion did not just shape one section, it became the organising principle the whole Card was named for. Q15→Q16 (5.3.8) confirms the pattern from the graduate side: clarity that is present at the start of studies disperses by the time of application, which is consistent with a clarity that is internal and unwritten dispersing under the pressure of the application phase. The iteration formalised the existing 1:1 conversation into the production of a persistent artefact, so that the clarity the call produced could be carried by the participant into the phase the call could not reach.

What this iteration set up for the next: The 1:1 video call now had to do two jobs at once - produce the WHY Card and ratify it. At cohort scale (approximately 87 graduates), this combination would not be operationally sustainable. The next iteration had to address the scaling pressure without losing the live ratification moment, which the framework treats as the institution's act of recognition.

D.1.3 Final version

The WHY Card as reported in 6.3.

Image D.2: the final WHY Card

kood/jõhvi

WHY card

name: _____

date: _____

batch: _____

A one-page articulation of your personal rationale for the career change, translated into the language a recruiter would recognise. Produced with the Talent Manager in the final week of the programme; carried with you into the application phase.

1 / personal motivation

why this change, in your own words

2 / chosen direction

the role or field you are moving toward

3 / evidence

concrete examples; no abstract claims

4 / first-contact version

the paragraph you would use in the first 60 seconds of a first interview

ratified by _____, talent manager

kood/jõhvi · 2026

D.1.4 Summary of A1 design decisions

Parameter that moved from D.1.1 to D.1.2

Output: internal conversation became written artefact (the WHY Card); institution moved from witness to ratifier

Driver that moved from D.1.1 to D.1.2

R-2 WHY criterion (5.4.3): articulation in the language of the receiving labour market is the discriminating signal at first contact; an artefact can travel to that contact, a conversation cannot. Supported by Q15→Q16 (5.3.8).

Parameter that moved from D.1.2 to D.1.3

Format: single sitting became three-movement workshop, with the live 1:1 call narrowed to ratification (Movement 3) and production offloaded to asynchronous workbook + LLM audience translation (Movements 1–2).

Driver that moved from D.1.2 to D.1.3

Cohort scale (5.1, ~87 graduates per batch); the 1:1 ratification moment is load-bearing in the framework, so production work was moved to where it could scale without compromising the institutional recognition act. Supported by T-1 competencies list (5.4.2).

D.2 A2 - the post-graduation continuity layer

D.2.1 Early concepts

Drafts were developed from data points collected from a graduate survey (G=22). Questions Q13 and Q14 aimed to understand the level of application phase difficulty compared with the learning phase and what has helped to overcome those difficulties.

Q13: 18 of 22 graduates rate the application phase as *much harder* than learning. **Q14:** 7 of 22 selected "*nothing*" when asked what has helped most in the application phase.

Fogg (B = M·A·P) - behaviour fires when motivation, ability and prompt converge; absence of any one prevents it.

The intersection

1. **Motivation is present.** Q14's distribution shows participants doing the application work - portfolio (9), AI tools (9), external mentors (4), staff (3). Q6 shows self-discipline as the dominant anchor (17/22). People are trying. Whatever Q13 names, it isn't a motivation deficit.

2. **Ability is largely present.** These are graduates. They completed an intensive technical programme. The "much harder" rating in Q13 is relative to learning - the same people who managed the learning phase find the application phase harder. If ability had collapsed, learning-phase comparison wouldn't be meaningful. The recruiter criterion confirms it from the other side: the discriminating signal isn't technical proficiency.
3. **The prompt is missing.** "Nothing" in Q14 is the empirical signature of an absent prompt. With motivation present and ability present, Fogg's model predicts that what's missing is what causes behaviour to stall. Q14's 7-of-22 "nothing" is that absence reported in the participant's own voice - no institutional cue is firing, no scheduled touchpoint, no external call to act. The "much harder" of Q13 is what M·A·P looks like when the third term goes to zero: the work doesn't become easier when M and A are intact; it becomes harder because the structure that ordered it has been withdrawn.

The design conclusion: A2 is the missing prompt. Its job is not to add motivation (already there), not to add ability (already there), but to restore the institutional cue that fires the behaviour the participant is otherwise carrying alone. The Week 0 / 2 / 4 cadence is the prompt cadence - three scheduled fires across the four-week window in which silent fade most threatens to set in.

D.2.3 Final version

The week 0 / 2 / 4 cadence as reported in 6.4.

Image D.3: week 2 sample email

Hi there!

Congrats once again on successfully finishing your studies! It's been a long journey, but you made it! 🎉

I'm checking in to see how things have been going since graduation. I know the junior tech market is not easy right now. Finding the first technical role can feel like a full-time job itself. Takes time, persistence, and quite a bit of patience.

If you're still looking for your first technical role, just a reminder that I'm here and happy to support you if you'd like a second pair of eyes or simply someone to think through next steps with.

💡 **Insight from a tech company recruiter**

They had 300 candidates apply for a junior position within the first 3 days after publishing the job ad. Because of that, they removed the ad early, even though the original application period was supposed to be longer.

This doesn't happen with every recruitment, but it's quite common in the current market.

My recommendation: when you see a role that interests you, BE QUICK.

Don't wait until the deadline. Apply as soon as possible.

Also, **an alternative platform to boost your job search** is Roleo:

<https://app.roleo.com/refer/2F2FKOOD>

It pulls together job openings directly from the career pages of Europe's hottest tech companies. Most openings are mid, senior, and manager level, but entry-level roles do occasionally show up there as well, so it can still be worth keeping an eye on.

As mentioned earlier, if you'd like personal support (CV, LinkedIn, portfolio feedback, job search strategy, interview prep, etc.), feel free to reach out. I'm happy to help! 🙌

Have a sunny spring

D.2.4 Summary of A2 design decisions

Parameter that moved

Operator framing: from researcher-led, content-heavy cadence (5 weeks, 5 touchpoints, CV help, reading materials, GitHub reminders) to institutional signal cadence (4 weeks, 3 touchpoints, WHY Card anchored, Talent Manager voiced)

Driver

Q11 dropout finding: top request was "more human contact and check-ins" framed institutionally rather than informationally. Supported by 5.4.1 (post-graduation institutional silence theme) and Q14 (7 of 22 reported "nothing" helped, indicating the gap is presence not content)

D.3 Family-level design decisions

A1 and A2 are designed as a pair, not as two separate artefacts. A2 without A1 has nothing to anchor to. A1 without A2 produces an output that the participant carries alone, with no institutional return. The artefacts are interdependent by design.

The WHY Card is what connects them. Section 4 of the WHY Card, the first-contact paragraph, is the object that travels from A1 into every A2 touchpoint. The same paragraph is read at graduation, at week 2 and at week 4. This is what makes the family one design rather than two adjacent ones.

The institution extends a pattern it already has, rather than adding a new one.

A1 reuses an articulation form already informally present at kood/Jõhvi. A2 reuses a channel the institution already operates. The novelty is the extension across the boundary, not the introduction of something new.

Mattering is treated as rhythm, not as event. The family is built on the assumption that being noticed by the institution is something the institution does repeatedly over time, not something it does once at graduation. A1 produces the artefact, A2 carries the rhythm.

The artefacts are deliberately light. What is missing at the boundary is institutional presence, not institutional intensity. A one-page card and three short emails are calibrated to that judgement. A heavier intervention would design against the data.

Both artefacts are piloted as Wizard-of-Oz. A1 is paper, delivered as a facilitated workshop. A2 is digital, delivered as a manual email cadence operated by the researcher. Both fidelities sit below what an institutional rollout would deploy at scale on the basis that the pilot's purpose is to surface the next iteration rather than to evaluate a finished product.

The researcher operates the pilot from inside the institution. This is the embedded-practitioner stance applied at the design stage rather than only at the research stage. It is named as a methodological trade in 6.5.5 and is treated as appropriate to the Research through Design paradigm.