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Guiding principles and strategies for the design and development of a motivational Skills Checker tool

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Guiding principles and strategies for the design and development of a motivational Skills Checker tool:

1. The design and development of the tool will be informed by the principles that are set out in the *Guidelines for Good Adult Literacy Work* (NALA 2012, Appendix 1)
2. The design will be informed by an assessment framework developed by NALA. The framework identifies four cornerstones of progress and looks at the different dimensions of learning and how learning takes place in a range of settings (NALA 2005, Mapping the Learning Journey, Appendix 2).
 - a. Dimensions of learning to be assessed - sometimes a person may be able to use their knowledge and skills in a controlled environment, i.e. writing or doing calculations at home or in class - but not under the conditions where they really need to apply them. For these people, the most important progress to make is not in learning more complex or difficult writing or numeracy skills but in being able to use the skills they already have under a broader range of circumstances. Many literacy and numeracy learners need to progress not only vertically but also horizontally. The broader dimensions of literacy and numeracy are not confined to independence, fluency and setting. They may include working under pressure, or in public, or where there are many distractions (SOLAS 2017a).
3. The tool should be learner-centred and its design should be based on the individual's goals and aspirations, knowledge, skills, any dimension of literacy, numeracy, digital skills needed in order to achieve their goal. Therefore, the tool should help the user see where they are and where they want to go. For adults, literacy motivation requires both the initial effort of will required to enrol on a course and the long-term persistence needed to overcome obstacles along the way. Goals have been shown to play a key role in this process. Goal setting is a key motivational process (Locke & Latham 1984) as people will engage in activities that are likely to lead to goal attainment. The design of the tool will put the user at the centre of the equation by creating an experience that is relevant and meaningful to their literacy, numeracy and digital needs (for example, the scenarios will enable users to connect their unmet needs with the reality of their daily lives). The content of the tool will be mapped to the Irish National Qualifications



Framework (NFQ) and the European Qualifications Framework (EQF) standards and levels of literacy, numeracy and digital skills (NFQ levels 1-4; EQF levels 1-3).

4. The tool should be constructive, there should be no pass or fail as the self-assessment is not a test. The tool should help the users identify their strengths as well as the areas they might wish to work on. It should help them see how much they already know and what areas they need to work on to reach their goals. It will provide feedback on their strengths and on areas they need to develop in a constructive rather than critical way.
5. The design and development of the Skills Checker will also be informed by the Wealth Model Approach (NALA 2018) which fosters a non-judgemental approach and emphasises that adult learners have a wealth of strengths, learning styles, experiences and skills and do in fact bring these different experiences and strengths to a learning encounter. These experiences and strengths constitute a resource, a good starting point for meeting new challenges. Drawing on the Wealth Model Approach, the tool will aim to help the users realise their own knowledge and strengths and develop new perspectives on themselves. It will aim to provide evidence of the users' existing ability to increase their confidence and contradict negative self-belief, replacing it with a positive and realistic belief so as to encourage them to explore and avail of existing opportunities for further learning and/or upskilling. Therefore, the design of the tool, and that of the output in particular, will need to contradict negative self-belief which often results in a learner not being aware of their strengths. The ability to learn can be activated by the belief that the ability exists. The output of the tool will refer the user to existing learning/upskilling opportunities that are appropriate to both their goals and the results of their self-assessment.
6. The tool should aim to help users overcome potentially adverse initial experiences of education (SOLAS 2017b) by showing that adult education is learner-friendly and very different from their former educational experiences.
7. The design of the tool will draw on the main principles of the Universal Design for Learning (UDL) framework in order to offer all users equal opportunities, including learners with disabilities and those lacking ESOL literacy (=those 'who have little or no literacy in English and who may or may not have literacy in another language and whose spoken English may range from basic to fluent' ESOL Scotland).

Adhering to UDL principles will ensure the proactive incorporation of inclusive design features such as flexibility in the way information is provided, in the way users respond or demonstrate knowledge, and in the way they are engaged (Appendix 3). The focus of UDL is to eliminate barriers through initial designs rather than having to later overcome barriers through individual adaptations.

8. The design, development and implementation of the tool will be based on research around instructional design models and theories of motivation such as Expectancy-Value Theory, Keller's ARCS model and Wlodkowski's Motivational Framework for Culturally Responsive Teaching that foreground the importance of motivation.

- a. **The ARCS Model of Motivational Design** can help with creating a motivational tool that will engage its users and sustain user engagement. Motivational design refers to the process of arranging resources and procedures to bring about change in motivation. Unlike other instructional design models that focus on effective and efficient instruction while largely ignoring motivation, ARCS takes motivation to be the essence of learning. It addresses motivation gaps (=somebody knows what to do but chooses not to do it, e.g. adults are aware of the existence of skills checkers but choose not to use them or adults use skills checkers, know what learning/upskilling pathways are available to them but choose not to avail of any opportunity) and describes strategies for stimulating and sustaining motivation in each of the following four categories: attention, relevance, confidence and satisfaction.

- i. **Attention** can be gained in two ways: through perceptual arousal (=capturing interest by arousing users' senses and emotions) or through inquiry arousal (a cognitive level of curiosity).

Strategies for provoking perceptual arousal – using surprise or uncertainty to gain interest, making an unexpected change in the environment, e.g. presenting a video after text-based information in an online environment.

Strategies for provoking inquiry arousal – stimulating curiosity by posing challenging problems, questions.

Other strategies for grabbing attention: active participation (games), humour (in small amounts as too much can be distracting), variability

(variety of modes and methods in presenting material, i.e. video, audio, spatial and so on),

- ii. **Relevance** refers to making the learning experience (self-assessing experience, in this case) personally relevant and meaningful.

Strategies for establishing relevance: use authentic, real-world materials (real-world scenarios, present relevant learning/upskilling opportunities in the output), accessible language (in the creation of content, navigation instructions), present worth (how the tool can help at the time of use), future usefulness (what the tool can do for the user in the future), ensure needs matching.

- iii. **Confidence** – this category is pertinent to self-efficacy and expectancies for success of the expectancy-value theory (described below).

Strategies for building confidence suggested by Keller: success opportunities – being successful in one learning situation can help build confidence in subsequent endeavours; personal control – confidence levels increase when users attribute their success to personal ability or effort, rather than external factors such as lack of challenge or luck.

The tool should help users understand their likelihood for success. When users feel that they cannot meet the objectives or that the cost (time and effort) is too high, their motivation will decrease. The feedback provided should be constructive and the tool should allow users to feel some degree of control over their assessment. Constructive feedback is essential in order to encourage learners to proceed with confidence to the next level.

- iv. **Satisfaction** refers to users continued motivation to learn – when learners experience satisfying outcomes, they are more likely to develop a persistent desire to learn.

Strategies for ensuring satisfaction – feedback and the rewards must be meaningful to learners; the use of the tool must be satisfying or rewarding in some way (feedback has to be provided in such a manner that it is appreciated by the user); the rewards can range from a sense of accomplishment to earning a badge or a certificate.



Satisfaction is based on motivation which can be extrinsic or intrinsic.

- b. The Motivational Framework for Culturally Responsive Teaching (Wlodkwski 2008) can be used for the development and enhancement of users' intrinsic motivation. The framework includes four motivational conditions that instructors can create or enhance, i.e. inclusion, attitude, meaning and competence. These conditions are essential for developing intrinsic motivation among users. They can be turned into questions to estimate where the instructional activities fulfil the conditions of the motivational framework and where they do not:
 - i. Establishing inclusion – create an atmosphere in which users feel respected and connected to others. Question to ask in order to establish inclusion: How does the activity create or affirm an atmosphere in which users feel respected and connected to others?
 - ii. Developing attitude – create a favourable disposition toward learning through personal relevance and choice. Question to ask to develop attitude: How does the activity make use of personal relevance and learner volition to create or affirm a favourable disposition toward learning?
 - iii. Enhancing meaning – create a challenging, thoughtful experience that includes learners' perspectives and values. Question: Are there engaging and challenging experiences that include learners' perspectives and values in this activity?
 - iv. Engendering competence – create an understanding that learners are effective in learning something they value. Question: How does this activity create or affirm an understanding that users have learned something they value and perceive as authentic to their real world?
- c. Expectancy-value theory suggests that people are motivated to learn if there is value in the knowledge presented and if there is an optimistic expectation for success. These two aspects, expectancies for success and task value beliefs, are the two most important predictors of achievement behaviours (Wigfield & Eccles 2000). Expectancies for success refers to learners' beliefs of whether they will do well on an upcoming task. The more they expect to succeed at a



task, the more motivated they are to engage with it. Task value refers to the rationale for doing a task. It answers the question: Why should I do this task? There are possible answers to the question: intrinsic value (the enjoyment a learner feels from performing a task), attainment value (the importance of doing well on a task; tasks are seen as important when they reflect the important aspects of one's self), utility value (the perception that a task will be useful for meeting future goals) and cost (what an individual has to give up to engage with a task). Several studies have shown that learners' expectancies for success and subjective task values positively influenced achievement behaviours and outcomes.

- i. Strategies for applying expectancy-value theory in practical settings (particularly in settings where learners tend to have low expectations): define clear, attainable goals; ensure that tasks/activities allow students to be successful in order to raise their expectancy; provide learners with positive role models and stress that the achievement of these role models may not have been great from the start but improved as their confidence increased and they gained more knowledge and experience.



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Appendices

Appendix 1 - NALA's principles for good adult literacy work

Adult literacy work is based on a philosophy of adult education which is concerned with personal development and social action.

Because literacy in modern society is a complex issue, adult literacy work must enable students to connect their literacy and numeracy learning with the reality of their daily lives, and with past experience. Therefore, personal development is an integral part of the learning process. In addition, literacy learning may lead individuals and groups to relate their own experiences to wider social issues.

Adult literacy learning is an active and expressive process. Students have the right to explore their needs and interests, set their own goals and decide how, where and when they wish to learn.

Adult literacy learning is most successful when the students are actively involved in the process and are encouraged to express their ideas and draw on their experiences. Students should also be enabled to explore the methods and materials which help them to learn most effectively and to take an active part in defining their goals and planning the learning programme. This has implications for training of tutors, teaching and learning approaches, choosing materials, including use of technology, and the assessment of learning. Some students benefit from the range of flexible options that are available such as blended learning, non-centre based learning, additional technological supports and distance learning.

Adult literacy work respects different beliefs, cultures and ways of being. An ethical code of trust and confidentiality underpins all aspects of the work.

This addresses the central issue of respect for difference and diversity. Adults who return to learning come from many different social and cultural backgrounds. Adult literacy tutors and organisations need to operate from a clear position of respect for different beliefs, languages, cultures and ways of life. This variety should be seen as providing opportunities for learning for all participants in a learning group or programme.

Confidentiality and respect must be established from the outset in order for students to feel safe. They can then begin to develop the trust that is needed if meaningful learning is to take place.



Students' knowledge and skills are vital for the effective organisation of adult literacy work. Students should have the opportunity to be involved in all aspects of provision.

Students have experience and knowledge which are essential for the successful planning, development and evaluation of adult literacy provision. Their views and understanding need to inform the way provision is organised, particularly publicity, course options, student support, resources and social activities. Students should be actively encouraged to become involved in the organisation, for example, to take a seat on the board. However, some students choose to attend only for tuition and this choice should be respected.

Adults learn best when the decision to return to learning is their own and the environment is supportive, relaxed and friendly.

Adults who decide to work on their literacy have taken an important and often difficult step. Students are more likely to attend regularly and stay in tuition when they see that their needs and concerns are at the heart of the organisation, and that good tutoring and resources provide the best possible conditions for learning. Ideally adult literacy learning should not be linked to welfare benefits or employment. Students based in other settings, such as training workshops, the workplace or in prisons, should have the right to decide whether they wish to work on their literacy skills.

Adults learn best when they enjoy the process. Learning provides opportunities for new social relationships. Adults and young people often find that their learning benefits from the chance to relax informally with other students and tutors. In addition, interaction in a learning group contributes to the learning process, and to the development of both the individual students and the organisation.

Appendix 2 - Mapping the Learning Journey (NALA 2005)

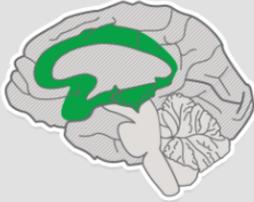
The framework identifies four features of learning as being essential to the learning process, i.e. the knowledge and skills cornerstone and three process cornerstones: depth of understanding and critical awareness, fluency and independence and range of application. The framework provides a more rounded picture of progress than an assessment based solely on the technical knowledge and skills involved in literacy and numeracy. The framework acknowledges that progress involves personal, social and emotional development. The three process cornerstones alongside knowledge and skills offer a way of affirming and recording growth in confidence, self-belief and independence that learners demonstrate in a variety of ways. In other words, knowledge and skills, i.e. the actual doing of a task, is one aspect. But the fluency with which one individual carries out the task, whether they can do it many settings or just in the learning situation, whether they can do it on their own – these are all important aspects of learning.

Appendix 3 – Universal Design for Learning Guidelines

Universal Design for Learning Guidelines

Visit the UDL Guidelines 

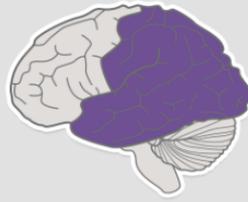
AFFECTIVE NETWORKS: THE **WHY** OF LEARNING



Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

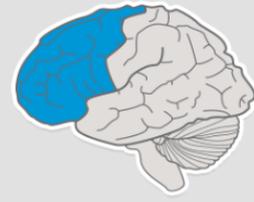
RECOGNITION NETWORKS: THE **WHAT** OF LEARNING



Representation

For resourceful, knowledgeable learners, present information and content in different ways.

STRATEGIC NETWORKS: THE **HOW** OF LEARNING



Action & Expression

For strategic, goal-directed learners, differentiate the ways that students can express what they know.

<http://www.cast.org/our-work/about-udl.html#.XYiwwShKjcu>