



A Tricordant Approach to Education

Education

There are many dilemmas in education and there are a number of specific problems that Tricordant's whole systems' thinking help address. These are:



- How do you get the best out of every child by enabling them to engage with and own the education process? This question applies from the primary school right up through the levels of education.
- A similar question, which begins to be relevant at the point where education becomes voluntary, is how does one minimise drop-out or non-engagement of students with FE and HE courses?
- In between there is the issue of how could school league tables be made to work and be meaningful? Everyone currently recognises that they measure the wrong thing.

This last question poses a hypothesis that educational value is not just measured in exam results (hard skills), but in a whole range of 'soft areas' as well. Most people know the difference between rote learning and 'education', but the problem is how to measure the latter and use that assessment in the educational process.

Tricordant Thinking on Purpose

Socio-technical thinking proposes that the human and technical resources of any organisation should be holistically aligned so as to achieve the organisation's primary purpose as effectively as possible. It is the achievement of the primary purpose that needs to be measured and evaluated. This is almost self evident.

The primary purpose of the whole organisation is also the sum of all the purposes of the sub-system levels below them, which Russian-doll-like add together to the achievement of the overall goal. These also need to be measured and evaluated.

When Tricordant seeks to identify purpose, it does so by looking for points of significant change, which Tricordant calls "significant events" in the inputs on which the organisation is working. In manufacturing these will be physical or perhaps informational inputs. In other areas not related to making things these transformations may also be conceptual, cultural or spiritual, etc.

Tricordant defines significant events as points in which: a) a new concept is created; b) material or information is converted or people transformed; c) people are inspired, healed, energised; or d) any combination of these, leading to a change in defining identity of the input.

It proposes that if organisations identify these points, they will then know what resources they need and how they should be aligned to increase the possibility of achieving them.

Education's Significant Events

The raw material of education is people. The significant events, ultimately, are happening in the minds and spirits of the people of all ages going through the education process and as the external process interacts and works on them. If we are to answer the questions in paragraph 1 above, we need to know how to align resources to deliver these significant event(s). However, before that it is important to be able to identify them theoretically, and then know to recognise

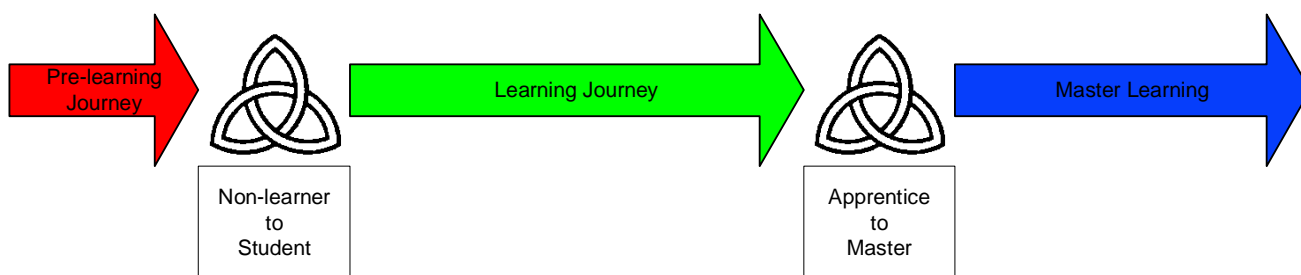


them objectively when they do or do not happen in practice. It is important to be able to measure progress towards these significant events, identify blockers and know what action to take so that individuals are unblocked and they move forward to their educational goal.

In Tricordant thinking it appears that education is based on series of progressive phases. People, in education, start outside the system as a whole or outside a phase within the total system. They then move across a real or perceived barrier into a new phase. They stay within that phase till they have 'internalised' its learning; they then move across a real or perceived barrier into the next phase. This pattern repeats in formal education from toddler to 'life time learning'. Applying the definition of significant events in each of these phases of learning there at least 2 significant events in each cycle which will repeat for every phase through the education process:

- The first needs to occur as each person crosses the barrier from outside to inside a given phase. As they do this they need to 'own their studentship' of that phase, with the realisation and confidence that they have the capacity to engage and cope with this phase of the cycle and benefit from it. This is a significant inspiration and hence a significant change in identity as the person internalises the role of learner or student within this new phase. If they fail to make this transformation and so fail to become a member of this current phase, they will fail in it.
- The second significant event is where people internalise the learning of that phase and make it a tool of their own life. This too is a significant inspiration leading to a change of identity. The student has gone from apprentice within the phase to master of the learning contained in that phase. The inspiration is the realisation for the student that they now 'own' this phase of knowledge. The next phase may have many challenges, but the content of this phase now belongs to them!

All education is about taking people through these two transformations again and again, phase by phase.



How Does This Help?

The problem is that we normally deal with these phase changes subconsciously. The general assumption is that these significant events automatically happen when a person enters a new phase in their lives, simply because they have physically changed classroom, gone to a new college, appeared on the first day of a new course, etc. Physical entry and the internal change are assumed to go together. One joins a course therefore the first transformation happens. One graduates from that course therefore the second transformation has automatically happened. The assumption is that the external events are reliable indicators of the internal changes. But what happens if they are not?

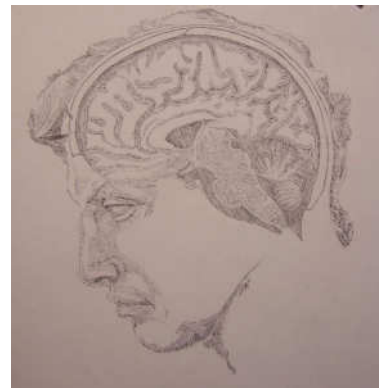
People are people. They work at their own speeds, which may or may not operate within the beat of institutional timescales. Students may become Masters of their subject before, during



or after graduation or may never get there at all. New pupils may arrive at the start of the new phase already ready to learn, or may never make that transformation during the whole of their learning career. Most teachers know intuitively when a pupil has crossed over and made the critical step or when a pupil has not or is not prepared to do so. It would help if we could see this objectively and if we could address issues that prevent people from making either of these critical steps as early as possible, before educational deficits build up and people give up inside and drop out.

However, the problem faced in education is that there are very few processes that measure the pupil themselves. The measurement systems available, either measure associated attributes like 'elapsed time or attendance'; or they measure end point outcomes like 'exam marks'. League tables take the focus off the needs of the pupil to acquire the tools for a full life onto the needs of schools and their staff to be seen in a good light.

All of this is made more complicated by the fact that people are multifaceted and the transformations in them are not irreversible. As biological systems people 'tend towards personal transformations' and then oscillate in their area for a period. So any measurement system for educational transformations needs to be real time and intimate to the process, and not just at the end of the process phase. It must be multifaceted, capable of recording the soft factors that predispose people to learn, as well as the hard knowledge of skills-based learning. It must be able to record and interpret changes in both the positive and negative directions and identify early interventions to make the important transformations more likely.



Learning from Disability to Work

Tricordant's experience in this area originated from working with a College that specialised in enabling the long-term disabled to move from being excluded at home to being included in real work.

The consultants, with the staff of the college followed the significant events that happened in the journeys of individuals, who moved successfully through the system and came out with real jobs, and found the following:

- Many of the students came to the college from a lifetime of failure. Everything up until their enrolment had told them they were no good and could never succeed. Before they could start retraining they had to learn that they could succeed and that they had the capacity to learn something that other people would value them for. They needed to make the first transformation.
- This capacity to learn was not just a mental switch but included a large number of soft skills and attributes, that are usually taken as read in the successful, but in these cases could be missing, because they have never been learned or developed in their previous education.
- Students lacking the mental switch and the soft skills would be prevented from entering into the process at all and would drop out after a number of weeks, with yet another failure to their list.

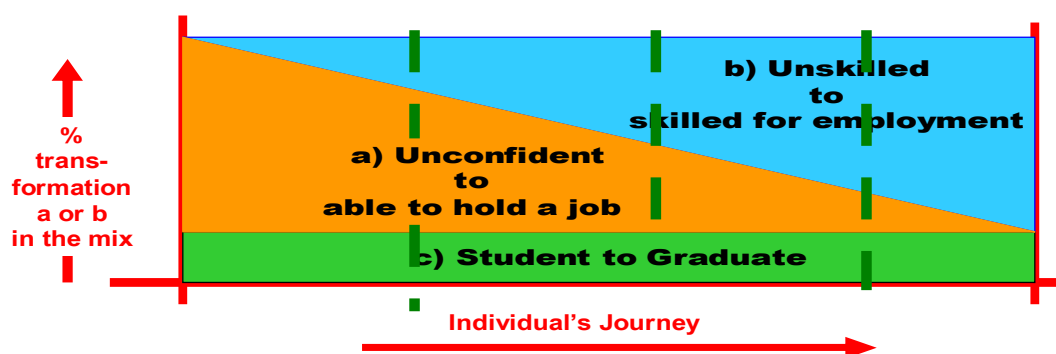


- For those who went through the system successfully there were a number of phases, that required the two significant events set out above to happen again and again; these included:
 - Outside the system to Novice
 - Novice to Student
 - Student to Jobseeker
 - Jobseeker to Probationary Worker
 - Probationary Worker to Stable in Work
- At each of the phase changes there was often a change in staff, so at this point there was a need for a common language that allowed students to travel safely from one phase to the next and from the guidance of one member of staff to the next, without setbacks in progress.

Hard-Soft Balance

In seeking to measure progress the Assessment and Development staff at the college realised that there is a necessary balance that needs to be maintained in each individual between the hard aspects of knowledge gain and the soft aspects of personal development. It was important to be able to measure both of these and their relative balance at any point. These needed to be kept in phase and their relative importance varied during a person's journey through the whole system.

This is illustrated by the diagram below. The drawing represents a student's journey through the system from left to right. The orange triangle represents the student's need for reinforcement and development of the soft dimension of their development. The blue triangle represents their need for hard training-based teaching. As the need and the delivery are related, a vertical slice through these triangles at any point in time also represents the focus of the teaching staff at that stage of the programme.



The key learning was that at the point of entry into the system the student needs more input in the soft skills' area to affect the first significant event and that without the initial growth in self-belief the student cannot accept the hard skills' learning at all. As the student progresses the amount of soft skills' support needed decreases as their ability to learn with confidence increases.



The barrier that was being hit in the disability to work area with a significant number of students was that historically no-one recognised the level of soft skills' deficit and so failed to address the gap. These students did not just start more slowly and get there in the end, they actually failed catastrophically and dropped out. Having a basic level of competence in soft skills' areas was a precondition to starting the process at all.

People at their own Pace

The second learning point was that people needed to travel through the system at their own pace. Students started at different places and were more or less ready to move forward. Those unabashed by being unemployed through having acquired a disability needed to move on rapidly into hard skills' learning and employer-focused activities, whereas those starting with a significant psychological deficit as a result of their past experiences, needed to rebuild their self-confidence and self-belief before they could move forward in the system. Clearly, if one could measure the individual against their soft and hard features' development, then it would be possible to a) start people in the right place; b) enable students to move through the process at their own right pace; and c) identify gaps on the soft side and take early targeted action to address these so that people were free to move forward as quickly as possible.

The vertical, dotted green lines in the diagram above represent the phase change points in the disability to work process where an individual was ready to move to the next phase: a) the first line is from learning primarily focused on confidence-building to learning mainly focused on skills' acquisition; b) the second is from classroom-based learning to learning and development in the workplace; and the third c) from sheltered workplace learning to full employment.

Hard-Soft Skills' Assessment

The Assessment and Development Manager at the college developed an approach to assess and quantify the balance between hard and soft skills in an individual. This had to be open and easy to use by staff and students and is described below.

A list of soft skill factors needing to be assessed was deemed to be paramount within any 'Journey Management' appraisal system. Those used by the college were confirmed by Department of Work and Pensions Occupational Psychologists, who looked at what soft areas a person needed in order to hold down a job. So far this list has been extremely useful for assessment in other educational environments too, including working with offenders and in Further Education Colleges, the Prince's Trust, Probation Services and Prison Education Services. It is not seen as an absolute but can be varied in other situations to suit particular client groups that require other assessment criteria.

The soft skills assessed in the case of this work included the following characteristics:

Personal Attitudes

- Initiative
- Concentration
- Enthusiasm
- Intellect
- Decision-Taking
- Physical Stamina
- Mental Stamina



Personal Drive

- Motivation
- Application
- Reliability
- Punctuality
- Adaptability
- Self-Belief
- Self-Awareness

Hard Skills

- Practical Ability
- Mental Agility
- Verbal Communication
- Written Communication
- Following Instructions/Procedures
- Matching Objective Standards
- Working under Pressure

Effective Working

- Working Alone
- Working in a Team
- Working with Supervision
- Interaction with Peers
- Awareness of Others
- Acceptance of Feedback
- Assertiveness

Use of the Tool

The twenty-eight characteristics were entered into a table and each was assigned five achievement levels. A descriptor – a short statement or sentence – was developed for each achievement level for each of the twenty-eight characteristics. The descriptors on the left-hand side described the minimum level at which someone would never work, and the descriptor in the fifth column on the right-hand side described someone who would reliably hold down a job. The descriptors in the three columns between these contained achievement levels with graded steps between ‘no hope’ and ‘job-holding’. All the descriptors in the vertical columns were then reviewed so that they were the equivalent of each other. So an entry in say column three had the same weighting in each of the 28 factors and similarly for columns 2 and 4.

The fact that the achievement level was spelt out as a descriptor meant that:



- The assessment tool could be used by staff and students, separately and together to assess student progress. So the approach became an open appraisal mechanism.
- The variation in assessment by different members of staff was reduced, because the value of each factor at each statement level was explicit and not implicit. This enabled it to become a common language for mapping student progress throughout the vocational journey and gave consistent appraisals between phases of a journey, even when used by different assessors.
- The use of descriptors meant that automatic reports could be derived, which were understood by all and represented a common currency for staff, students and sponsors as measures and descriptors of student progress.

The second power of the tool is that it graphically measured progress. In the diagram below seven of the 28 factors have been detailed. The actual descriptors have not been included so as not to overcrowd the diagram. Each performance appraisal can be done quickly based on experience, using highlighter to shade the appropriate descriptor. By using a different colour highlighter for each sequential assessment, student progress can be seen developing from left to right across the assessment grid.

	Could not work	Progress 1	Progress 2	Progress 3	Work ready
Concentration	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5
Enthusiasm	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5
Intellect	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5
Decision Taking	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5
Physical Stamina	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5
Mental Stamina	Statement 1	Statement 2	Statement 3	Statement 4	Statement 5

1st Review Assessment
2nd Review Assessment

The assessment grid can show regressions as well as progressions and highlight students that are stuck and going nowhere.

It also shows lagging indicators that will require extra input or special interventions if the student is to succeed.

The use of this approach, increased sensitivity to each student's needs, involved and motivated students, increased the chances of a student reaching the job application zone with the right balance between the hard and soft skills needed to win and retain a job.

Linking Image to Objective Measurement

While this is all useful a further question was asked. Would the approach enable the appraiser to identify the transformation points between phases proposed at the start of the paper? That is the point where the internal light goes on in a student, they have become the master of the current educational phase and are ready to transition into the next phase.



These transformation points are represented by the vertical dotted green lines. The problem is that people are varied and complex and that reaching a stage in the process is multifaceted and reversible. However, if a numerical value is given to each of the 28 characteristics, it would be possible to turn the appraisal of the soft areas from qualitative to quantitative. The 'assessors' worked on the grid to identify the descriptor along with its associated numerical value, which best described the minimum level by which a student is deemed 'competent' to progress on to the next development level. This set a benchmark value for each of the transition points. Each student's personal performance could then be monitored through assessor-student interaction, quantified through the grid and then measured against these benchmarks.

These predetermined benchmarks were designated to provide the evidence that students had the right balance of hard and soft skills to move from assessment into foundation, from foundation into mainstream, from mainstream into work experience, from work experience into sustained work. Not only does the matrix show when students are ready to progress, but more importantly it will provide details of specific characteristics by which individual students may be failing, thus providing objective evidence for introducing personalised development programmes, specifically structured to overcome identified personal weaknesses. Students' developmental journeys can then be tailored to meet their personal needs, promoting individual student development within a timescale and learning style that they are comfortable with.

Effectiveness in its own Contexts

This approach worked well in the context in which it was developed. Key benefits were that it:

- improved the integration of the training provided
- enabled staff to work together co-operatively
- enabled the time students were in the development process to be optimised, which maximised the effectiveness of the investment in the students
- involved students more in their own development
- reduced student dropout
- reduced the administrative overhead in report writing
- increased the sensitivity and personalisation of courses
- increased the confidence in the sponsors of students going through the college, because they now understood a student's total progress.

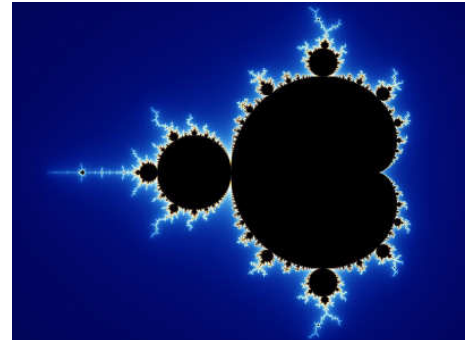


These benefits have been repeated in Further Education Colleges, the Prince's Trust, Probation Services and Prison Education Services.

How Universal is this Idea?

This is an important question. At the start of the paper it was proposed that there are a number of transformations common to all educational phases and processes. These are that:

- All education is about enabling people to move through the internal phase changes, where a) they buy into the current educational phase and then b) internalise or master the current phase and so are ready to move onto the next; where the pattern repeats.
- The success of all phase changes depends on growth in and internalisation of a mix of hard and soft skills.
- The lack of the soft skills can prevent the hard skills transformations from happening, readiness to change phase depends on assessing soft skills as well as hard skills and measuring these against the phase benchmarks for change.
- It is important to assess lagging skills so that they can be developed before they become road blocks.



Therefore, logically the approach should apply to a variety of educational situations.

Empirically, the approach has now been applied to a number of situations, all related to the areas of education for the disadvantaged moving towards work. The challenge is to see what other areas this could assist in and how the tool needs to be developed to make it effective in these environments.

Other Areas where Soft Factor Measurement may Improve Outcomes

It is possible that understanding and measuring the right soft skill factors may assist in a number of difficult situations. These could include:

- Managing the high dropout rates from students entering into further education through early identification of those who are not making the first transition and providing assistance to those students.
- Enabling infants to take to the whole education process. This is similar in concept to the point above but with a different age and stage of maturity to be understood.
- Measuring and rewarding schools that take on students with a high level of social deficit. Enabling these students to engage with education, even if they do not go on to get three As at A-Level. This would help the rebalancing of league tables so that they assess incremental gains in hard skills' measures (exam passes) and the soft skills' improvement (the rest of education) together.
- Understanding what is blocking their learning early in a learner's career at any level, so that the blockage is addressed through targeted remedial action and the learners are enabled to 'join and own' the educational system.



This at present is speculation. But based on the evidence of the work so far the idea is worth pursuing and developing.

Summary

Tricordant thinking proposes that the organisation and alignment of technical and human resources around the significant events in any process is the key to whole systems' effectiveness. This will be true in education as in other areas. In education the problem is identifying the significant events and then measuring people as they progress towards them.

Tricordant proposes that there are two important significant events that repeat throughout education. These are a) the emotional and physical joining of an education phase; and b) becoming a master of that phase and making the learning one's own. To assess progress towards these events, it is important to measure both the hard and soft components which need to be developed together for people to succeed.

In the past there have been ways of assessing hard skills' progress but soft skills' development has not been measured. The approach outlined above proposes a way of a) adding soft skills' development into the educational tool set and b) a way of setting combined hard and soft skills' benchmarks, which can be used to determine progress.

The approach has been shown to work well in the general area of adult education which enables students with a range of disadvantages to successfully access work. From this it is possible to postulate that, if the approach were grown and adapted, it should work in other educational areas too, because they too have the mix of the two significant events and hard and soft skills' development.

Education has a number of challenges that need to be mastered. These include a) the balancing of school league tables; b) enabling all pupils to join the education process and c) reducing FE and HE dropout. Tricordant believes that the approach described here can be extended to deal with these and similar issues.

This paper was written by the late Mr. Irwin Bidgood, Founding Director of Tricordant Ltd.

For further information about the ideas in this paper please contact Alastair Mitchell-Baker, Director, Tricordant Ltd., Tel: 01189426826, Mob: 07775684868, E-mail alastair@tricordant.com

Note about Tricordant

Tricordant Ltd is an organisational design and development consultancy. Our passion is equipping organisations to be whole and healthy. Through the application of our unique whole systems approach and experience we enable organisations to become high performing, sustainable and robust, delighting their customers and making work more meaningful, motivating and enjoyable for employees. Visit www.tricordant.com to read download our case studies and for more information about what we do.