LEARNING APPROACHES, STUDY ORIENTATION AND READINESS FOR SELF-DIRECTED LEARNING OF YOUTH IN TAFE

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Abstract
Learning programs in TAFE are based on adult learning principles. Adult learning is often characterised by a deep approach to learning, an andragogical orientation to study and high level of readiness for self-directed learning. These aspects of learning among youth (aged 17-24 years), particularly those enrolled in TAFE have not been researched. This study investigated the learning approaches, study orientation and readiness for self-directed learning of 266 youth enrolled in Technical And Further Education (TAFE) Institutes. A survey using the Learning Preference Assessment instrument, Study Process Questionnaire and the Student Orientation Questionnaire was conducted to gather data. The results of the survey showed that most youth have a predominant surface approach to learning, a preference for an andragogical orientation and low level of readiness for self-directed learning. The findings have significant implications for theory and practice.

Introduction
Literature is inundated with various aspects of studies about adult learners resulting in theories and principles largely verifying that they are indeed different from youth and children. Among numerous others, scholars such as Lindeman (1926), Knowles (1973, 1980, 1990) and Mezirow (1991, 1994, 1996, 1997, 1997a) have significantly influenced research in the field of adult learning. Indeed, the volume of research in recent times has reached a position that could substantiate adults as no longer a ‘neglected species’.

Within most cognitive literature, research about adults has consistently been assimilated with youth learners (aged 17-24 years), although they (youth) are argued to be a distinctly different group of learners (eg. Keniston, 1970; Perry, 1970; Kasworm, 1980; Labouvie-Vief, 1982; and Lankard, 1995). Most research studies of tertiary students (comprising youth and adults) have ignored age as a variable, demonstrating a lack of sensitivity to age (Richardson, 1994). Richardson (1994, p. 310) describes such research practice as “… inherently ageist”. While there are clear theories and principles for adult learners, namely described as andragogy, none are evident for youth learners notwithstanding recent debates surrounding the andragogy-pedagogy dichotomy claim that teaching of youths is significantly different from the teaching of adults (Delahaye, Limerick & Hearn, 1994). Furthermore, a study investigating the learning approaches, study orientation and readiness for self-directed learning of a single sample has not been found in a literature search for the research reported in this paper. In addition, evidence of research relating to these aspects of learning among youth or specifically among TAFE students could not be located through a search of several educational databases.
Three attributes generally associated with adult learning are a deep approach to learning; and an andragogical orientation to study; and a high level of readiness for self-directed learning. Whether youth share these attributes common in most adult learners is not apparent in literature. A recent major study, of which this paper reports the results for TAFE students, showed that most youth learners did not share adult learning characteristics such as a deep approach to learning, an andragogical orientation to study and high level of readiness for self-directed learning (Choy & Delahaye, 2000).

The research in this paper therefore informs apparent gaps in literature such as about youth’s (from TAFE) learning approaches, study orientation and readiness for self-directed learning. The findings insinuate implications for practice to enhance youth learning.

Learning Approaches
Research about how learners organise their learning environment, reproduce facts and the relative emphasis they place on their understanding of concepts have consistently alluded to three common approaches to learning as surface, deep and achieving (Wilson, Smart & Watson, 1996). A surface approach is driven by extrinsic motives where the focus of learning is mainly on the elements of the learning tasks rather than the whole (Biggs, 1990). A common symptom of surface pathology is rote learning where knowledge is assimilated without changing its format by habitually memorising (Marton & Saljo, 1976). Invariably, the interconnections, meanings and implications of the learning tasks are seen as unimportant (Biggs & Moore, 1993).

By contrast, a deep approach is driven by an intrinsic motivation and a search for the interrelationships between elements of the learning tasks to gain an overall understanding of the content as a whole. Deep learning involves the process of conceptualisation, making connections with prior knowledge to construct personally meaningful schemata (Biggs & Moore, 1993). This is achieved through comparison, classification, contrast, analysis and synthesis of information for comprehension, in place of memorisation such as with surface learning. A significant characteristic of a deep approach is that learners are more actively involved with the content, and they constantly reflect metacognitively on what is being learned by using optimal strategies to achieve qualitative outcomes. Trigwell & Prosser (1991) argue that, although deep learners perform at a higher qualitative level, this does not suggest that they always score high marks for assessment.

According to Biggs & Moore (1993) an achieving approach is characterised by highly organised study strategies and high achievement motivation. Learners with a predominant achieving approach are outcome focused, to satisfy an egocentric, extrinsic need such as high grades and prizes. They are more competitive and use strategies that are cost-effective in terms of time and effort. Hence a combination of surface as well as deep strategies may be used by them to achieve learning outcomes.

The choice between surface and deep strategies depends largely on the content and context of learning. Watkins & Hattie (1990) listed five contextual factors that influence the adoption of a deep or surface approach: students’ level of interests; expected outcome (intrinsic, extrinsic values); prior knowledge relating to the task; perceptions of the provider; and assessment tasks. According to Biggs (1988) situational pressures such as time, thoroughness of assessment and teacher variables could also influence the choice of a surface,
deep or achieving approach. He advises that the degree of influence can be reduced through intervention programs, to direct/re-direct individuals from a surface to deep and deep to surface learning approaches.

**Study Orientation**

Those with a pedagogical orientation acquire knowledge and skills, and demonstrate their competence to their teacher. Their learning is therefore said to be more teacher-directed. In such instances the learning contents are generally prescriptive with emphasis on transmittal of knowledge (Knowles, 1980). Learners with a pedagogical orientation expect the teacher to firmly direct their learning, motivate them and be responsible for assessing all the learning. Common practices that support a pedagogical orientation include lectures transmitting factual information, assigned readings, drills, tests, and rote learning. Teachers operate on the assumption that learners with a pedagogical orientation are ready to learn whatever is prescribed to them in the form of standardised curriculum (Knowles, 1980). Although pedagogical practices are more appropriate for children, Knowles (1980) defended the use of such practices with some adult learners, particularly in circumstances where any other approach is unsuccessful.

In contrast the practice of andragogy is more learner-centred and the role of the teacher is primarily that of a facilitator. Characteristics of adult learners with an andragogical orientation to education include self-direction, autonomy, responsibility for decisions, resource of experience, performance of social roles and immediacy of application or action (Christian, 1982). Knowles (1990) recommends this orientation to accomplish more meaningful outcomes because it encourages learners to stress and display their freedom of choice for learning goals, content and processes. Learners with an andragogical orientation expect the teacher to provide an environment that enhances learning and have only some control over the process of learning (Christian, 1982). An andragogical orientation encourages higher levels of self-direction.

The domain of study orientation is firmly grounded in Knowles’ (1980) principles of adult learning where he differentiates between pedagogy and andragogy. For some time pedagogy and andragogy were seen to lie at the polar ends of a continuum (Knowles, 1980; Brookfield, 1986). More recently, Delahaye, Limerick & Hearn (1994) re-conceptualised learning from the pedagogy/andragogy perspectives and proposed an orthogonal orientation (at right angles) replacing the continuum model. They argued that the orthogonal representation embraces a more holistic awareness of learning orientation in four stages underpinned by learner maturity. This model parallels Grow’s (1991) four stages of self-directed learning. The four stages in the orthogonal model are high pedagogy/low andragogy, high pedagogy/high andragogy, low pedagogy/high andragogy, and low pedagogy and low andragogy.

**Readiness for Self-directed Learning**

Knowles (1975, p.18) defines self-directed learning as

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\text{… a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.}
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According to Knowles (1980) self-direction is not totally situational, personal traits analogous to maturity also play an important part. Delahaye et al. (1994) supported this argument, proposing an orthogonal model of pedagogy-andragogy factors in which learner maturity forms the basis for transformation from low to high self-directedness. Knowles (1980) perceived self-direction as a basic human competence and advocated that a high level of readiness for self-directed learning supports lifelong learning.

Major research by Guglielmino (1977) led to the preparation of the Self-Directed Learning Readiness Scale. The Learning Preference Assessment (LPA) is the self-scoring format of the scale (L. Guglielmino & P. Guglielmino, 1991). The LPA is the most widely used instrument for measuring the level of readiness for self-directed learning (Long & Agyekum 1988; McCune 1989; Merriam & Brockett 1997) and has contributed to a large volume of research in this area.

A range of skills and attributes analogous with self-directed learning has been listed. Gibbons (1994, p. 6), lists ten basic skills for self-directed learning.

2. Making intelligent choices and decisions.
3. Goal-setting and planning.
4. Managing one’s time, energy and resources.
5. Taking action and solving the problems one encounters.
7. Reflecting on the meaning of events and imagining possible futures.
8. Sharing decisions, actions and problems with others.
9. Demonstrating and celebrating achievement.
10. Clarifying one’s own direction and passion.

These basic skills function in concert with accompanying dispositions for high levels of readiness for self-directed learning. The extent to which learners make decisions about the learning content, methods, resources, pace and assessment determines their degree of self-directedness (Mocker & Spear, 1984). Learners with a strong andragogical orientation towards their study are known to frequently make decisions of this nature (Christian, 1982; Delahaye, 1991). Although adults have frequently been described as self-directed learners (Brookfield, 1985) some scholars (eg. Mezirow, 1985) argue that only degrees of self-directedness are possible in place of complete autonomy. Researchers have gone further to identify a range of factors that constrain the degree of self-directedness among tertiary students (see for example, Garrison, 1997).

Within the vocational education and training (VET) sector self-directed learning forms a crucial aspect of competency-based training (James & Coleman, 1998). A higher demand for self-directed learning lies on those undertaking distance learning courses in VET. Recent research (Warner, Christie & Choy, 1999) showed that over 70% of those undertaking flexible delivery options have average and below average levels of readiness for self-directed learning compared to international norms (Guglielmino, 1991). The level of readiness of full-time, of on-campus students pursuing VET courses in recent times is not known, this research has informed the shortfall.
Method
A survey using the Study Process Questionnaire (SPQ) (Biggs, 1988), Student Orientation Questionnaire (SOQ) (Christian, 1982) and the Learning Preference Assessment (LPA) (L. Guglielmino & P. Guglielmino, 1991) instrument were used to gather data about the learning approaches, study orientation and readiness for self-directed learning of 266 youth aged 17-24 years who were enrolled in study programs at four TAFE institutes. Each item in the questionnaires had a five point Likert type scale. Participants were instructed to respond to the items in the questionnaires on the basis of their overall learning experiences at their respective institution. Among the sample there were 135 male and 130 female students. The sample was pursuing qualifications at the certificate and diploma levels in a range of fields.

The response to each item in the SPQ and the SOQ was scored between 5 – 1. As suggested by the authors of the LPA, some items were reverse scored (1 – 5). Computer software (SPSS) was used for analysis of data.

The survey results were analysed and key findings were presented during focus group discussions with youth to explore the factors that contributed to those findings.

Results

Learning approaches

The TAFE sample’s scores for surface, deep and achieving approaches and corresponding standard deviation are shown in Table 1.

Table 1  Mean surface, deep and achieving scores with corresponding standard deviations.

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<th>Surface</th>
<th>Deep</th>
<th>Achieving</th>
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<tbody>
<tr>
<td>Mean</td>
<td>48.0</td>
<td>43.6</td>
<td>44.5</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>7.62</td>
<td>9.20</td>
<td>9.60</td>
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The mean surface score for youth from TAFE is higher than the mean score for deep and achieving approach. Similarly, their mean achieving score is higher than their mean deep score. These results show that TAFE students have a greater inclination towards a surface approach to learning. There was a significant difference between the surface and deep (t = -8.11, p = .000) as well as the surface and achieving scores (t = -7.38, p = .000) of the sample, but no such differences were noted between the deep and achieving scores (t = 1.54, p = .125).

At the 95% confidence level there was no significant difference between the scores of male and female for surface, deep or achieving approaches to learning. Computations showed no significant difference between the surface and achieving scores of those aged 17 – 20 years (n=226) and those aged 21-24 years (n=40), a difference in their mean deep scores was noted (t=2.99, p = .004). The older youth had a higher mean deep approach score compared to the younger youth. However, this difference is debatable in view of the comparatively smaller
number of older youth in the sample. While no significant difference was computed between the mean surface and deep scores of those pursuing a certificate or diploma qualification, there was a difference in their mean achieving scores \((t=2.12, p=.010)\). Those pursuing a certificate qualification scored a higher mean for achieving approach (45.3) compared to the diploma students (42.8).

Study orientation

Possible pedagogical scores lie between a minimum of 25 and a maximum of 125. The pedagogy scores for the sample ranged from 41 to 121. The mean pedagogy and andragogy scores for the TAFE sample are shown in Table 2.

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<tr>
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<th>Pedagogy</th>
<th>Andragogy</th>
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<tr>
<td>Mean</td>
<td>84.7</td>
<td>91.3</td>
</tr>
<tr>
<td>Standard dev.</td>
<td>14.2</td>
<td>12.8</td>
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</table>

The mean pedagogy score for the TAFE sample was 84.7 and standard deviation was 14.2. There was no statistically significant difference in the pedagogy scores by gender. The mean pedagogy score for males was 85.9 and for females it was 83.5. There was no significant difference between the mean scores of those aged 17-20 and those 21-24 years old. The younger age group had a mean score of 84.7 with standard deviation of 14.3, while the older group had a mean score of 84.2 and standard deviation of 14.1. There was no significant difference between the mean scores of those pursuing a certificate or diploma qualification at TAFE.

The possible scores for andragogy were between 25 and 125. The andragogical scores for the TAFE sample ranged from 56 to 125 with a mean of 91.3, and standard deviation of 12.8. There was no significant difference between the mean scores of males and females from TAFE nor between the mean scores of those aged 17-20 and those 21-24 years old. The andragogy scores of TAFE sample who were pursuing certificate and diploma qualifications were examined. There was no significant difference between the mean andragogy scores of certificate and diploma students.

When the pedagogy and andragogy scores were compared, there was a significant difference between these \((t = 8.65, p = .000)\). The andragogy scores were significantly higher than the pedagogy scores suggesting that youth had a greater preference for an andragogical orientation. The survey results about youth’s orientation to study indicate their preference for an environment that is ideally preferred by most adult learners. The survey indicates an ideal that youth would prefer, but does not indicate their preparedness for the responsibilities as a learner to supplement the preferred andragogical learning environment.

Self-directed Learning

TAFE youth’s LPA scores in this study ranged between 122 and 275. The mean score was 203 and the standard deviation was 23.8. The mean and standard deviation for the TAFE
sample were lower than that for the normative sample who had a mean of 214 and standard deviation of 25.6. The mean score for males was 205.0 (sd = 25.3) and for females it was 201.1 (sd = 22.1). There was no significant difference between the LPA scores by gender. The older youth (aged 21-24 years) had slightly higher mean of 210.3 (sd = 26.1) while the younger youth had a mean of 201.8 (sd = 23.2). The difference in the means was approaching significance (t = -1.86, p = .065). The distribution of the sample within the five levels of readiness is shown in Table 3. The score range to ascertain each individual’s level of readiness for self-directed learning was that suggested by L. Guglielmino & P. Guglielmino’s (1991).

Table 3  Distribution of sample (%) with different levels of readiness for self-directed learning.

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<th>n</th>
<th>Level of readiness for self-directed learning</th>
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<tr>
<td></td>
<td>1 Low (58-176)</td>
</tr>
<tr>
<td></td>
<td>2 Below average (177-206)</td>
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<tr>
<td></td>
<td>3 Average (207-226)</td>
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<tr>
<td></td>
<td>4 Above average (227-251)</td>
</tr>
<tr>
<td></td>
<td>5 High (252-290)</td>
</tr>
<tr>
<td>266</td>
<td>11.3%</td>
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<tr>
<td></td>
<td>45.9%</td>
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<tr>
<td></td>
<td>28.9%</td>
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<tr>
<td></td>
<td>10.9%</td>
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<td></td>
<td>3.0%</td>
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Over three quarters of the TAFE sample (86.1%) have average to low levels of readiness for self-directed learning and only 13.9% have above average levels of readiness.

Discussion
For the reason that there is limited literature on research about the learning approaches, study orientation and readiness for self-directed learning of TAFE students, comparison and discussion of results for this study are made difficult. In view of this, the results and findings of this study are discussed in relation to studies involving youth (young adults) learners. One other issue that impedes broad discussion of the results is that research about study orientation using the SOQ is limited. A preference for an andragogical orientation by youth in TAFE itself is contentious as this preference is not in consonant with their approach to learning (surface) and readiness for self-directed learning (below average). Consequently, explanations and discussions about youth’s preference for an andragogical orientation are presented separately.

Overall, the results suggest that youth in TAFE are more inclined toward a surface approach to learning. Their surface approach scores were significantly higher than their scores for deep and achieving approaches. These results were consistent with findings by Volet, Ranshaw & Tietzel (1994). The findings support Richardson’s (1997) conclusion that youth (younger) learners are more oriented toward a surface approach to learning. The results concur with recent findings by Zeegers et al. (1998). In their longitudinal study where learning approaches were measured at three intervals, those aged less than 20 years consistently scored highest in surface approach. Zeegers et al. (1998) concluded that tertiary experience was a factor that influenced students’ approach to study. Their study showed that the school leavers’ (most of who were similar in age with TAFE youth) level of surface approach increased during their initial years at undergraduate levels. A possible explanation was given by Zeegers et al. (1998, p. 12) as follows:
Merely keeping up with their studies becomes the students’ principal concern and hence they adopt strategies which will enable them to do so. Student perception that course requirements do not need more elaborate cognitive skills leads students to adopt those strategies which they believe will be successful; success in this instance being a passing grade in the topics studied and overall academic survival.

Furthermore, Zeegers et al. (1998) alluded to the difficulties that students face in trying to adjust to the demands of the tertiary system such as the volume of course contents, its rate of delivery, and time frames to meet deadlines for assignments. Added to these is the lack of time to reflect on what is learned. These form extrinsic factors which have an impact on the students’ learning strategies (McKay & Kember, 1997; Zeegers et al. 1998). Additionally, reproductive assessment questions (Entwistle & Ramsden, 1983; Thomas & Bain, 1984), formal teaching (Ramsden & Entwistle, 1981), transmission of information (Gow & Kember, 1993), increased work loads (Dahlgren, 1984; Eley, 1992) and lack of freedom in learning (Entwistle & Ramsden, 1983; Eley, 1992) form factors that encourage learners to use a surface approach. Harper & Kember (1986) explained that younger students who come straight from high school tend to be more surface oriented because they are used to pedagogical practices that encourage a surface approach to learning. An overloaded curriculum adds to the level of anxiety and contributes to increased usage of surface approaches to learning (Marton & Saljo, 1976; Dahlgren & Marton, 1978; Eley, 1992).

Although the samples in the above mentioned research were from universities, the factors that lead to a predominant surface approach to learning could be said to apply equally to youth in TAFE. Youth in TAFE undergo similar transformational changes from secondary school to higher education such as a move from a predominant pedagogical to a less pedagogical approach to teaching and learning. They experience similar cultural changes when moving into higher education and share common external pressures of time, content overload, nature of assessment requirements, formal teaching and the need to acquire large volumes of information within a short period.

A predominant surface approach to learning among youth in TAFE has implications for performance of its graduate in the workplace as well as lifelong learning imperatives. It is important that learners are able to relate their learning tasks to their own context or prior knowledge to construct personally meaningful schemata. Deep learning enables them to operate at a high, or abstract, level of conceptualisation, and reflect metacognitively on what is to be done (Biggs & Moore, 1993, p.312). The need to relate evidence to conclusions and examine the logic of arguments is stressed by Richardson (1994). Deep learning leads to higher qualitative outcomes (Trigwell & Posser, 1991). These qualities are argued to be essential for better performance at work. They form key requirements for lifelong learning. Nonetheless this study shows a paucity in deep learning approaches among youth attending TAFE. Youth in TAFE need to develop deep approaches to learning. Unless TAFE graduate operate at deep levels, they will not be able to adequately fulfill job tasks that involve deep processing. Their performance will largely be mechanistic. This shortcoming would have long-term implications for changes in the work environment.

Literature informs that the extent to which learners get to make decisions about the learning content, methods of delivery/teaching, resources, pace, and assessment and the level of opportunities they get for critical thinking, reflective thinking, and self-directed learning also
influences their learning approaches and study orientation. These factors are said to be important for adult as well as lifelong learning (Entwistle & Ramsden, 1983; Mocker & Spear, 1984; Brookfield, 1988, Mezirow, 1990; Garrison, 1991; and Eley, 1992). Biggs (1987) suggests that teaching institutions can enhance the quality of learning through their influence on the situational factors (Biggs, 1987), this presents a major challenge for TAFE. However, they can do little to control the personal factors to direct learning approaches.

A preference for a predominant andragogical orientation is surprising and in conflict with a predominant surface approach to learning and low level of readiness for self-directed learning. Surface approach to learning and low level of readiness for self-directed learning are congruent with pedagogy. It is suspected that by responding to the Study Orientation Questionnaire (SOQ), youth have expressed their ideal learning environment. Each item in the instrument pertains to how the respondents prefer their instructor (teacher) to operate. Many youth share learning environments with adult learners and have observed the practice of andragogy. They appreciate the teachers’ reactions towards adults. For instance, youth like teachers to respect and value learners’ experiences and abilities, and show concerns for learners. Youth prefer the social and human elements that are fostered by the practice of andragogy. The SOQ fails to position the ideals of youth in terms of the ensuing responsibilities, skills and attributes of the learners with a pedagogical or andragogical orientation.

The findings about youth’s study orientation using the SOQ need to be interpreted with caution. The SOQ is limited in informing learner’s readiness for andragogy which is critical to deciding which teaching orientation is most suitable for them. Changing from a pedagogical to an andragogical approach to teaching on the basis of youth’s preference for andragogy would be futile if they do not have the skills and attributes for it. Added to this, it is also important to establish whether they are ready to take on the responsibilities that come with the philosophy of andragogy. The responsibilities of teachers for pedagogical and andragogical orientations are already explicit in literature, corresponding responsibilities of learners is rare.

TAFE teachers could address the preference of youth for a more friendly environment where their experiences and abilities are respected and show greater concerns for youth learners, just as they do for adults. This could be accomplished without much additional resources. However, these form only the superficial elements of the learning environment. The greater concern to encourage youth to become more like adults would be to focus more on their skills and attributes.

The finding that a majority of youth in TAFE with low level of readiness for self-directed learning is not surprising. This finding is similar to that of Warner, Christie & Choy (1998). In a large survey with 542 individuals undertaking vocational education and training through flexible delivery options, including on-line learning, a majority (over 70%) had average to low level of readiness for self-directed learning. This compares with about 86% of the youth in this study who are enrolled in on-campus studies. Both studies illustrate low level of readiness for self-directed learning among students in TAFE. The fact that learning modules in TAFE are based on adult learning principles implies that considerable self-directed learning would be expected. One of the principles of adult learning relates to self-directed
Several reasons could be attributed to low level of readiness for self-directed learning.

Recent learning experiences (in high school) of most youth are other-directed. Skills in self-directed learning are not taught in high school, for that matter does not form a key part of the TAFE curriculum either. Self-directed learning therefore is a new experience to most youth, one that they struggle with because of deficiency in skills and lack of appreciation for such learning. Self-directed learning requires considerable background knowledge and ‘maturity’ to take initiative, diagnose learning needs, set goals, identify resources, implement appropriate strategies for learning and evaluate the outcomes. It requires one to make decisions, set goals, plan, manage time, reflect, and clarify thoughts and directions. These form a high level of involvement and responsibilities, as well as serious commitment. Added to this is what Knowles (1980) calls personal traits analogous to maturity. Many youth do not have the knowledge, skills, life experience or maturity to successfully undertake the requirements for self-directed learning. However, the nature of self-paced, competency-based modules used by TAFE demands a high degree of self-directedness.

Situational factors also significantly influence the level of readiness for self-directed learning. The precise nature of the situational factors (TAFE environment) that influence the level of readiness of youth at TAFE is not known. The frequency of involvement in self-directed learning and the extent to which TAFE youth are expected to complete such learning tasks is not known. However, it is expected that the self-paced, competency-based modules would place greater demand for self-directed learning.

The results of this study show that youth in TAFE are able to successfully complete their courses using surface approaches to learning and low levels of readiness for self-directed learning. The implications of this would place in doubt the quality of learning. Critical thinking is not only important for higher education, also but for lifelong learning. Kerka (199..) contends that creative thinking, decision making, problem-solving, visualisation, reasoning, analysing, interpreting and knowing how to learn are all important skills for critical thinking in the future workforce. Developing critical thinking skills were traditionally assumed by more academic institutions, but the VET sector also has a vital role in developing these for their graduates. Thomas (1992) advocates that VET needs to produce critical thinkers to meet the needs to occupations that are becoming more reliant on cognitive capacities. The working environment increasingly requires flexible, adaptable workers who are able to deal with changing work conditions. Workers need to be taught how to think as opposed to what to think (Chalupa, 1992).

In view of the nature of the current self-paced, competency-based learning modules used by TAFE, it is to their as well as the learners benefit to enhance proficiency in self-directed learning. Workshops upon enrollment are advisable, but more importantly self-directed learning needs to be contextualised by embedding them within the course content.

Conclusion
The findings of this research suggest that youth aged 17 – 24 years and enrolled in TAFE courses are unlike adult learners. They do not share adult learning characteristics such as a deep approach to learning, andragogical practices and high level of readiness for self-directed learning. Learning programs in TAFE that are largely based on adult learning principles are
therefore inappropriate for use with youth learners who do not have the skills, attributes and dispositions that require learning analogous with adults. It is therefore imperative for TAFE to examine its learner support systems and implement strategies to enhance skills in deep approaches to learning, andragogy and high level of readiness for self-directed learning. This investment would augment the preparation of learners for curriculum that is based on adult learning principles and subsequently add to the preparation of skilled, lifelong learners.
References
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