CHAPTER TWENTY THREE

Researching Motivation

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Research into language learning motivation is relatively recent, with studies dating back to the mid-twentieth century. This chapter will provide an overview of the major thinking and research in motivation. Early research focused on the work of Robert Gardner and colleagues (e.g. Gardner 1985; Gardner & Lambert 1972). Their research was located within a social-psychological paradigm which dominated research into language learning motivation until the 1990s. In the 1990s, major academic journals called for a diversification of theorizing in motivation informed by other disciplines, notably education. This resulted in a number of new studies into language learning motivation that did not use the Gardnerian paradigm. In this chapter, four areas of motivational research will be discussed. First, the Gardnerian socio-educational model of language learning will be briefly presented. Research since the 1990s will then be considered: self-determination theory (Deci & Ryan 1980, 1985), a process model of motivation (Dörnyei & Otto 1998) and goal orientation theory (Ames & Archer 1988). The section on goal orientation theory uses Woodrow's (2006) study to highlight confirmatory factor analysis as a technique that may be used to investigate latent constructs.

Gardner's socio-educational model of language learning

The work of Gardner and colleagues into language learning motivation was the most significant contribution to research in the area in the twentieth century. Gardner's research into second language motivation

was developed in bilingual Canada and resulted in the socio-educational model of second language learning. The model is based on the belief that the social and cultural setting can influence motivation which influences the formal and informal contexts of language learning which, in turn, results in linguistic and non-linguistic outcomes (Gardner 1985, 2006). The model has four distinct areas: antecedent factors, individual difference variables, language acquisition contexts and outcomes. In the model, goal orientations are viewed as antecedents of motivation. Motivation comprises the desire to learn the second language, motivational intensity and attitudes towards learning a language. It is the notion of goal orientations that captured the attention of the research world when the model was introduced. This was a very influential view of second language motivation for many years. Gardner referred to two orientations: instrumental and integrative motivation. An instrumental orientation refers to a situation whereby the learner is motivated to learn the language for extrinsic reasons, such as for financial gain or job promotion. An integrative orientation refers to the situation whereby the learner is motivated to learn the language because they identify with the target culture. In Gardner's theory, these orientations do not appear in the core construct of motivation. However, in many research projects in the twentieth century, these orientations replace the motivation construct itself, thus, according to Gardner, over-simplifying the theory (Gardner 1988). Masgoret and Gardner (2003) conducted a meta-analysis of studies using Gardner's model of language learning.

In the 1990s, there was considerable debate through a series of journal articles that questioned the relevance of the Gardnerian model of motivation to contexts other than bilingual Canada where the research had originated (Crookes & Schmidt 1991; Dörnvei 1990, 1994; Oxford 1994; Oxford & Shearin 1994; Tremblay & Gardner 1995). For example, how relevant is an integrative orientation that focuses on the extent to which a learner wishes to identify with the target culture to Chinese students studying English as a subject in Chinese schools? As a result of this discussion, a number of studies emerged that focused on conceptualizations of motivation from research in areas other than language learning, notably, workplace and education motivation. Some of these research studies are presented in papers on language learning motivation published in the 1990s. Oxford's (1996) volume, for example, includes articles on a range of motivational issues, for example, goals and expectancy (Schmidt et al. 1996) and linguistic self-confidence and contextual influences (Dörnyei 1996). A further volume of research into motivation was published in 2001 (Dörnyei & Schmidt 2001) as a result of a state-of-the-art colloquium on second language motivation at the annual meeting of the American Association of Applied Linguistics held in Vancouver.

Self-determination theory

Self-determination theory (Deci & Rvan 1980, 1985; Rvan & Deci 2000) focuses on the extent to which individuals can exert control over their environment. This has been applied to language learning (McIntosh & Noels 2004; Noels 2001; Noels et al. 2000). Central to this theory is the conceptualization of motivation as intrinsic and extrinsic. Intrinsic motivation reflects a willingness to engage in a given task for the inherent interest or pleasure gained from the task. Three types of intrinsic orientations have been suggested: intrinsic knowledge, where an individual is motivated by a quest for knowledge; intrinsic accomplishment, which refers to the satisfaction experienced by accomplishing a challenging task and intrinsic stimulation, which refers to the enjoyment of the given task (Noels 2001: Vallerand 1997). Extrinsic motivation reflects a willingness to engage with tasks to achieve a specific outcome. Deci and Ryan classify extrinsic motivation according to level of internalization. Thus, an external regulation could refer to passing an examination or to getting a good job while internal or integrated regulation could refer to improving an individual's opinion of their capability (Rvan & Deci 2000).

Noels and colleagues investigated extrinsic and intrinsic motivation in relation to the Gardnerian model of motivation. Their research indicated that the intrinsic and extrinsic conceptualization was applicable to language learners and suggested a model of motivation that integrated self-determination theory and the Gardnerian model of motivation. In particular, they examined social contact, needs, orientations, second language use and linguistic and non-linguistic outcomes (Noels 2001; Noels et al. 1999, 2000; Pae 2008). More current research using the self-determination theory framework seeks to integrate motivation into a more complex model of variables, such as learning strategies (McIntosh & Noels 2004) and self-efficacy (Busse & Walter 2013).

A process model of motivation

Dörnyei and Otto (Dörnyei 2000; Dörnyei & Otto 1998) proposed a process model of motivation which reflects dynamic and contextual aspects of second and foreign language motivation. This model includes a temporal dimension of motivation designed to account for changes in motivation over time. This, Dörnyei argues, is logical since language learning is a lengthy process and success is based on sustained learning over a period of years (Dörnyei 2001). The process model of motivation is complex. It is based on Heckhausen and Kuhl's action control theory (Heckhausen 1991; Heckhausen & Kuhl 1985). This model considers the stages of motivation

from before engaging in a given task to after task completion. Three stages are hypothesized: the preactional stage that reflects desire and goal setting; the actional stage that reflects engagement and appraisal; and the postactional stage that reflects causal attributions and further planning.

Current thinking in motivation higlights the importance of the social and the dynamic nature of motivation (Dörnyei & Ushoida 2011). This conceptualization includes the notion of the perception of self, for example, future self and vision as motivational force (Dörnyei & Kubanyiova 2014; Ryan 2009); contextual influences such as teacher motivational strategies (Guilloteaux & Dörnyei 2008; Moskovsky et al. 2013); and an emphasis on the temporal dimension of motivation – how motivation fluctuates (Dörnyei & Ushoida 2011; Lamb 2004).

Research strategies and techniques

The strategies used in second language motivation research are governed by the nature of motivation. Since motivation is a latent construct, it cannot be observed directly and so depends upon self-report measures such as questionnaires and interviews. Usually motivation is not considered in isolation and often models are hypothesized as comprising a number of motivational variables. These variables are usually examined in relationship to a language variable such as achievement as measured by a language test.

The most common design in motivational research is a cross-sectional study which typically aims to provide a snapshot of a given aspect on a single occasion, for example, Dörnyei et al. (2006) conducted a large-scale study into language learning motivation in Hungary. Cross-sectional studies involve collecting data on one occasion and often involve questionnaires. For example, a researcher can collect data about the motivational profile at the time of data collection. Cross-sectional studies enable the researcher to examine relationships between variables. For example, such a design might measure motivation and compare this to language proficiency. The advantage in using a cross-sectional design is that it is easy to collect data from a large number of participants. Cross-sectional research can be contrasted with longitudinal research, which involves collecting data on a number of occasions over a period of time, such as Ushoida's (2001) study that collected qualitative data about motivation of language learners at university over a 2-year period.

Second language research typically uses quantitative measures where the latent variable of motivation is operationalized by *observed variables*. To operationalize a variable means to make the variable measurable. In research into latent constructs, this is usually done by asking questions of individuals, most frequently by constructing questionnaire items. Questionnaire items

typically use some form of rating scale, such as a *Likert scale* or a *semantic differential* scale. These are closed questions that can be assigned a numerical value. A Likert-scale item requires the respondent to indicate the extent to

Example of a Likert-scale item								
Fill in the circle that best expresses your view								
My teacher is efficient								
Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
0	0	0	0	0				
c	1 1							
Semantic differential scale								
Rate the efficiency of your English teacher by marking an X on the scale.								
My English teacher is efficient::: inefficient.								

FIGURE 23.1 Examples of questionnaire items

which they agree or disagree according to a numerical scale. For example, a five-point Likert scale ranges from 1 (strongly disagree) to 5 (strongly agree). In a similar manner, semantic differential scales ask for a rating on a line based on a statement.

These are then assigned a numerical value in a similar way to a Likert scale. Figure 23.1 shows examples of a Likert type scale item and a semantic differential type item.

Questionnaires rely upon self-report, that is, the data come from the respondent's own account of their experiences or views. One issue concerning this is that participants may provide responses that reflect how they would like to be viewed (Oller 1982). For this reason, it is important that questionnaires are worded very carefully avoiding obvious desirable answers. It is also important that confidentiality is ensured.

The resulting data from questionnaires is typically analysed using inferential statistics (see Phakiti this volume). Inferential statistics refer to statistical techniques that can be used to make inferences from data from a small group of respondents to a larger population thus enabling findings to be generalized. Motivational research typically uses inferential statistical analysis on data provided by questionnaires. The relationship between variables, often presented in the form of a motivational model, is frequently the main concern of motivation research. Typical analyses are often based on correlations between variables.

Instrumentation and data analysis

The most widely used questionnaire or instrumentation to measure motivation and related variables is Gardner's (1985) Attitudes/Motivation Test Battery. This instrument operationalizes the variables proposed in his socio-educational model of language learning. These variables include attitudes towards target language speakers, teachers and learning situations; motivational orientations, desire and intensity; anxiety and parental encouragement. The scale uses three types of questionnaire items: Likert scale, multiple choice and semantic differential scale. The Attitudes/Motivation Test Battery instrument is a published standardized test of language learning motivation. It has sound psychometric properties (Gardner & MacIntyre 1993) and has been widely used and adapted. The instrumentation and instructions on how to use this are available from Gardner (1985).

Noels and colleagues devised the *Language Learning Orientations Scale* to measure motivation which comprised amotivation (lack of or passive engagement), external regulation, interjected regulation, indentified regulation, intrinsic motivation knowledge, intrinsic motivation, accomplishment and intrinsic motivation stimulation (Noels et al. 2001, 2003). It uses 7-point Likert scales to assess these motivational variables. The scale asks respondents to rate the extent to which they agree or disagree with a series of statements from 1 (disagree completely) to 7 (agree completely).

When considering motivation from a broader sociodynamic perspective, it is becoming common to use mixed-methods. In this way, complex models that reflect contextual influences, multi variable models and the fluctuation of motivation over time can be investigated (Ushioda 2013).

Data analysis

In motivation research, data are frequently analysed using statistical procedures using correlations. These include basic techniques such as bivariate correlations (see Phakiti this volume) that examine the linear relationship between two variables. More complicated procedures include exploratory factor analysis. This technique is used to investigate the extent to which observed variables are indicative of underlying latent variables or factors. Further complex analyses include structural equation modeling which involves testing hypotheses about relationships between variables. Studies using structural equation modeling have increased in recent years. This is probably due to the development of powerful statistical analysis software that reduces the burden on the researcher who wishes to employ this kind of analysis.

There are two types of factor analysis: exploratory factor analysis and confirmatory factor analysis. Exploratory factor analysis is used in early

stages of researching motivation. A large number of observed variables (questionnaire items) are analysed to examine the extent to which these correlate, which may provide evidence for the composition of a latent variable. The analysis produces a more manageable set of factors. Exploratory factor analysis is calculated using computer software such as the Statistical Package for the Social Sciences (SPSS Inc. 2007). This software generates output in the form of a table that includes *factor loadings*. A factor loading is a correlation coefficient. This is a number less than 1.00 that reflects the magnitude of the relationship between the variable and the factor. For example, a factor loading of 0.90 indicates a strong relationship while a loading of 0.2 indicates little relationship. Exploratory factor analysis is used a great deal in the preparatory stages of research where evidence is required of the make-up of a given variable. A great deal of Gardner's research used this technique (Gardner 1985; Gardner & Lambert 1959, 1972).

There are a number of issues researchers need to be aware of when using exploratory factor analysis. The most important is deciding how many factors to extract and how the factors should be labelled. Two main methods are used for deciding how many factors should be extracted. First, Cattell's *scree test* may be used to provide a visual representation of the data. This is a visual representation of the variables in the data set. The scree plot should indicate a line that sharply increases at a given point on a graph. Where this happens will indicate whether, for example, three or four factors be selected. The second method, known as *Kaiser's criterion* (Kaiser 1960), uses *eigenvalues* to determine factors. An eigenvalue represents the total variance explained by the factor. Only factors with eigenvalues higher than 1.00 are then considered for inclusion in the factor.

Once the number of factors is decided, they need to be labelled. The choice of label should be evident from the *indicator variables* – that is, those variables within the factor that have the highest loadings. Consideration is also given to the common features of variables loading on that factor. Of course, this is can be quite controversial because it is based on the researcher's personal judgement.

Confirmatory factor analysis is conceptually similar to exploratory factor analysis but uses structural equation modeling to confirm rather than explore a latent model. Structural equation modeling is discussed below.

Structural equation modeling

Structural equation modeling is a relatively new development in data analysis. This technique has gained in popularity in recent second language motivation studies (Dörnyei et al. 2006; Gardner et al. 1997). This is because structural equation modeling is very useful when considering the nature of latent variables and for testing hypothesized models. Structural equation modeling can be used to identify relationships between variables. It is

sometimes referred to as causal modeling, although this is not strictly true. Causality cannot be claimed based on statistical evidence alone but needs substantial theoretical evidence. When using structural equation modeling, a model is proposed and then tested to examine how the data fit the model. Thus, a clear conceptual model is hypothesized based on theorizing and/or previous empirical evidence. The variables in the hypothesized model then need to be operationlized or measured by some form of research instrument. The data collected are then examined to determine to what extent the data fit the model. The following steps are usually followed in a research project using structural equation modeling (adapted from Blunch 2008, pp. 75–78):

- 1 Statement of research questions.
- 2 Design of a hypothetical model including directional paths.
- 3 Decide how concepts will be measured.
- 4 Collect data.
- **5** Test model fit using computer software.
- **6** Examine computer output for model fit.
- 7 If necessary, modify model.
- 8 Accept or reject model.

When specifying a structural model, rectangles are used to indicate an observed variable, an oval is used to indicate a latent variable, a small circle indicates the error associated with the variable and an arc is used to indicate a correlation. Figure 23.2 illustrates this.

Structural equation modeling requires the researcher to hypothesize a model with directional relationships between several variables – latent and observed. This model is then confirmed or rejected by using *goodness-of-fit-indices* that compare the hypothesized model with the data. There are a large number of fit indices that can be used to help researchers evaluate the extent to which the model is likely to be supported by the data. Because the indices reflect different views of model building, researchers usually use several fit indices to provide evidence to accept or reject the proposed model. Most structural equation modeling studies use the Chi square (χ^2) statistic. In structural equation modeling, this statistic reflects the null hypothesis that is known to be false *a priori*, thus the null hypothesis states that the model is 100 per cent correct. So, a non-significant value indicates a good fit to the data. However, since structural equation modeling is very sensitive to sample size chi squared normed (χ^2/df), (chi square divided by the degrees of freedom) is often used as well.

In addition to this, other fit indices are also used. Table 23.1 presents some of these fit indices. Views on acceptable values associated with fit indices vary slightly in reported research. Table 23.1 shows those recommended by Holmes-Smith (2000) since these were used in the sample study.

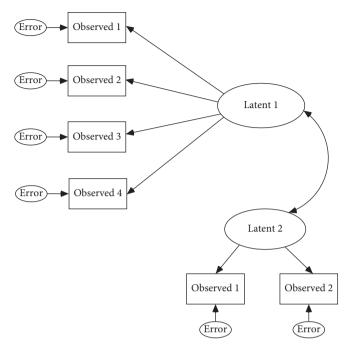


FIGURE 23.2 Symbols used in structural equation models

Table 23.1 Fit indices for structural equation models (based on Holmes-Smith 2000)

Index	Symbol				
Chi-square	χ^2	Non-significant			
Normed Chi-square (Chi-square divided by degrees of freedom)	$\chi^{2/df}$	1.00 – 3.00			
Goodness-of-Fit Index	GFI	0.90 or higher			
Adjusted Goodness-of-Fit Index	AGFI	0.90 or higher			
Root Mean Square Residual	RMR	Region of 0.05			
Root Mean Square Error of Approximation	RMSEA	Region of 0.05			
Normed Fit Index	NFI	0.90 or higher			
Nonnormed Fit Index	NNFI	0.90 or higher			
Comparative Fit Index	CFI	0.90 or higher			

There are a number of issues that a researcher needs to be aware of when using structural equation modeling. First, a proposed model may not be the best model to fit the data. The fit indices can only provide evidence on adequate versus inadequate models. Another issue is that it requires a

large sample size which increases with the number of variables or model parameters. A minimum sample size would be 150 cases (participants) but some researchers recommend a ratio of 5–10 cases per variable (Tabachnick & Fidell 2012). As mentioned, structural equation modeling is sometimes referred to as causal modeling; however, in models where causality is addressed, this is inferred from the model rather than 'proved'. The model can only tell the researcher that a cause and effect relationship is feasible based on the data.

There are a number of data analysis techniques that can be facilitated using structural equation modeling. *Confirmatory factor analysis* is one such technique. Confirmatory factor analysis is similar to exploratory factor analysis described above except in that the model is first hypothesized and then tested rather than the data being explored first and then a model emerging. So, the researcher makes decisions before the analysis, based on theory and empirical research. The researcher follows the same steps for structural equation modeling outlined above. First, the hypothesized model of relationships between variables is designed. These constructs need to be operationalized. This means items are designed that will measure the underlying construct. A questionnaire is often used for this. The data is then collected and put into a software program such as Analysis of Moment Structures 21 (Arbuckle 2012). This can test the fit of the data to the model. This model is then accepted, adjusted or rejected.

In confirmatory factor analysis, a model is proposed where one or more latent variables are hypothesized to be made up of particular observed variables. This model is then tested and may be modified. In confirmatory factor analysis, unlike exploratory factor analysis, observed variables can be removed from the model. As such, confirmatory factor analysis is very useful for the development of questionnaires focusing on latent variables. The researcher would start with a large bank of items (observed variables) and remove those that are not indicative of the latent variables.

A sample study

The study described in this section is Woodrow's (2006) examination of the notion of adaptive language learning in a second language setting. This study proposed and tested a model of adaptive learning that comprises several related variables: motivation, self-efficacy, anxiety and language learning strategies. Part of the study involved applying a goal orientation conceptualization of motivation as used in education (Ames 1992) to English language learners. This fitted in with the move in the 1990s to consider second language motivation from a broader perspective informed by theorizing outside of language learning. The research used a questionnaire to measure goal orientations of English for academic purposes (EAP) students. Based on theorizing and empirical evidence, a three factor latent model was proposed and tested using confirmatory

factor analysis. The study indicated that goal orientations were applicable to EAP learners. This has implications for classroom practice in terms of motivating EAP language learners.

Background to the study

The study used goal orientation theory from education research (Ames 1992; Ames & Archer 1988) as a conceptualization for second language motivation relevant to adult EAP students studying in an ESL environment. Gardner's proposed model of language learning included integrative and instrumental orientations. However, these are not central to the model and reflect a socio-cultural perspective whereby the learner has the assumed goal of integrating into the target culture. In contrast, goal orientation theory reflects a sociocognitive perspective with a focus on the learning process. In goal orientation theory, goals are typically classified as being task or performance (Ames & Archer 1988). A task goal (also known as a learning or mastery goal) is viewed as being desirable and most likely to result in positive learning outcomes. A learner adopting this goal would be motivated by learning tasks and achievement for its own sake; they would view competence as being related to effort and have a positive view of errors as contributing to the learning process. A performance goal (also known as an ego or ability goal) reflects a focus on ego or self rather than on achievement for its own sake. While a task goal is concerned with developing competence, a performance goal is concerned with displaying competence (Urdan et al. 2002). In recent years performance goals have been re-conceptualized as approach and avoid goals (Smith et al. 2002). A performance approach goal reflects a desire to demonstrate high ability while a performance avoid goal reflects the desire to avoid demonstrating low ability (Elliot & Church 1997; Elliot et al. 1999; Middleton & Midgely 1997; Midgley et al. 1998).

The study

The study involved a sample of EAP learners. The learners were given a questionnaire to measure their goal orientations. A model of goal orientations was proposed and tested using confirmatory factor analysis. The results indicated a good fit to the data. Based on these results, it was evident that this conceptualization of motivation is relevant to EAP learners. The participants in this study were 275 students (male, n = 139; female, n = 136) taking EAP courses at intensive language centres in Australia prior to university entry. The students completed a 5-point Likert type questionnaire on goal orientations. The goal orientations were measured using sub-scales taken from the Patterns of Adaptive Learning Survey (PALS) (Midgley et al. 1997). The items were adapted for use with adult second language learners. The questionnaire comprised three sub-scales to measure task, performance

approach and performance avoid goal orientations. An example of a task goal item is: I like English language learning tasks that I'll learn from even if I make a lot of mistakes. An example of a performance approach goal item is: Doing better than other students in this class is important to me. An example of a performance avoid goal is: It's very important to me that I don't look as though I can't speak English in my class. The questionnaire used a 5-point Likert scale ranging from 1 – not at all true of me to 5 – very true of me. Each sub-scale comprised five items.

Confirmatory factor analysis was chosen as the most applicable method of data analysis because the research concerned a latent structure specified a priori. A model of motivation orientations comprising task, performance approach and performance avoid was specified using *Linear Structural Relations* (LISREL) computer software (Jöreskog & Sörbom 1996). While exploratory factor analysis can be computed using SPSS, confirmatory factor analysis needs structural equation modeling – specific software such as LISREL or the SPSS supported package Arbuckle (2012). The confirmatory factor model was specified using a covariance matrix as data for the model. The model was then tested for fit using various fit indices (see Table 23.1).

The proposed *confirmatory factor* model of motivation indicated a moderate to good fit to the data according to the fit indices and the factor loadings. The factor loadings are interpreted as in exploratory factor analysis. High loadings indicate a strong relationship between the latent variable and the observed variable. The model confirmed three latent variables: task, performance approach and performance avoid goal orientations. The model includes error for each observed variable. Correlations between the latent variables are also illustrated. Thus, performance goals were highly correlated, probably because both are informed by self-referent perspectives. There was a small correlation between task and performance approach goals, which is in keeping with other researchers (Midgley et al. 1998). There was also a moderate correlation between a task goal and a performance avoid goal. This result indicates that for this sample, participants could feasibly have both orientations. Figure 23.3 illustrates the model and Table 23.2 provides the fit indices.

Conclusions reached in the study

This study made a contribution to second language motivation research because it applied goal orientation theory to English language learning. It used this conceptualization of motivation for EAP learners. It seems reasonable to adopt an educational perspective with such a sample since the learners have both language and educational goals. The participants all intended to continue to study in a tertiary institution. The results from the confirmatory factor model indicated that goal orientation theory is applicable to EAP learners. The results also confirmed that a task goal is a variable of adaptive learning and that it was related to high achievement in language learning.

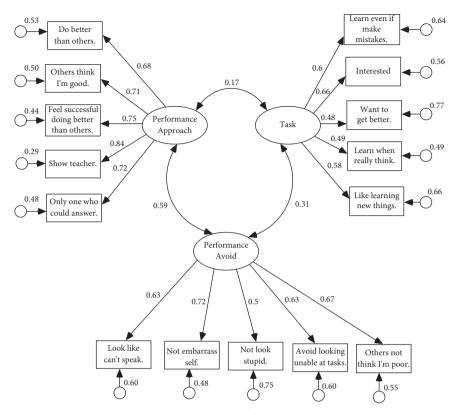


FIGURE 23.3 Confirmatory factor analysis for motivational goals

Table 23.2 Fit Indices for confirmatory factor analysis of second language motivation goal orientations

	X ²	p	χ²/df	RMR	RMSEA	GFI	AGFI	CFI	NFI	NNFI
Motivation Goals	194.96	0.000	2.22	0.06	0.07	0.91	0.87	0.90	0.84	0.88

This project examined a new way of thinking about motivation in language learning but like most research into motivation, it used a cross-sectional design which provided a snapshot of the motivation of the sample. However, second language motivation may change over time as the second language develops and is influenced by many teaching and learning contexts (Ushioda 2001). So, there is a need for more research that can reflect these contextual and temporal aspects of second language motivation. It would be valuable for such research to be qualitative, thus making it possible to

examine motivation from various angles, reflecting the elements involved in the teaching and learning process. In order to capture developmental issues over time, a longitudinal research design would be most appropriate. The best approach is perhaps a mixed methods approach that encompasses both generalizable and rich descriptions of motivated (and demotivated) learners and their environments.

Resources for further reading

Dörnyei, Z & Ushioda, E 2011, *Teaching and Researching Motivation*, 2nd edn, Pearson, Harlow.

This book is in its second edition and includes Ema Ushioda as the second author. Ushioda brings a qualitative focus to research in motivation. The book provides an overview of research into second language motivation. There is a useful section on sources and resources for conducting research into motivation. This includes advice for developing research projects focusing on language learning motivation and the methods used to do this.

Mercer, S, Ryan, S & Williams, M (eds), 2013, Psychology for Language Learning: Insights from Research, Theory and Practice, Palgrave Macmillan, London.

This volume contains a collection of articles focusing on current psychological constructs in language learning. Language learning motivation is a central theme running through the volume. As such, it provides a state of the art view of motivation research.

Dörnyei, Z & Ushioda, E (eds), 2009, *Motivation*, *Language*, *Identity and the L2 Self*, Multilingual Matters, Clevedon.

Dörnyei is arguably the most prominent researcher and scholar in second language motivation today. This collection of research papers into second language motivation is a valuable contribution to the literature in the field. The collection includes qualitative studies into motivation.

Midgley, C (ed.), 2002, Goals, Goal Structures and Patterns of Adaptive Learning, Lawrence Erlbaum, Mahwah, NJ.

This is a selection of papers based on a long-term study using the PALS into motivation in a school setting. It includes a methodological focus and a chapter on methods to investigate motivation.

Murray, G, Gao, X & Lamb, T 2011, *Identity, Motivation and Autonomy in Language Learning*, Multilingual Matters, Bristol.

The current trend in motivation research is to examine its relationship to other related variables. This volume of articles brings together a number of contemporary studies focusing on identity, motivation and autonomy in a wide range of research settings and using various research methodologies.

Ushioda, E 2013, *International Perspectives on Motivation: Language Learning and Professional Challenges*, Palgrave Macmillan, London.

This edited volume focuses on motivation and the learning of English. It features articles based on research conducted in different regions and educational settings. It includes a chapter on goal orientations by this author.

Schunk, DH, Meece, PR & Pintrich, PR 2013, Motivation in Education: Theory, Research and Applications, 4th edn, Pearson, Upper Saddle River, NJ.

This book provides an overview of the major theories of motivation in education research. It describes how these perspectives on motivation may be implemented in classrooms.

Woodrow, LJ 2006, 'A model of adaptive second language learning', *Modern Language Journal*, vol. 90, no. 3, pp. 297–319.

This article presents the research that resulted in the motivation model of adaptive second language learning referred to in this chapter. The model comprises self-efficacy, anxiety, motivation and language learning in relation to English language proficiency.

References

- Ames, C 1992, 'Classrooms: Goals and structures and student motivation', *Journal of Educational Psychology*, vol. 84, no. 3, pp. 261–271.
- Ames, C & Archer, J 1988, 'Achievement goals in the classroom: Students learning strategies and motivational processes', *Journal of Educational Psychology*, vol. 80, no. 3, pp. 260–267.
- Arbuckle, JL 2012, AMOS (version 21), SPSS, Chicago, IL.
- Blunch, NJ 2008, Introduction to Structural Equation Modeling Using SPSS and AMOS, Sage, London.
- Busse, V & Walter, C 2013, 'Foreign language motivation in higher education: A longitudinal study of motivational changes and their causes', Modern Language Journal, vol. 97, no. 2, pp. 435–456.
- Crookes, G & Schmidt, RW 1991, 'Motivation: Reopening the research agenda', *Language Learning*, vol. 41, no. 4, pp. 469–512.
- Deci, EL & Ryan, RM 1980, 'The empirical exploration of intrinsic motivational processes', in L Berkowitz (ed.), *Advances in Experimental Social Psychology*, vol. 13, Pergamon Press, New York, NY, pp. 39–80.
- ——— 1985, Intrinsic Motivation and Self-Determination in Human Behaviour, Plenum, New York, NY.
- Dörnyei, Z 1990, 'Conceptualizing motivation in foreign language learning', *Language Learning*, vol. 40, no. 1, pp. 45–78.

- the New Century (Technical report vol. 11), University of Hawai'i at Manoa, Honolulu, HI, pp. 71–80.
- 2000, 'Motivation in action: Towards a process-oriented conceptualization of student motivation', *British Journal of Educational Psychology*, vol. 70, no. 4, pp. 519–538.
- ——— 2001, 'New themes and approaches in second language motivation research', *Annual Review of Applied Linguistics*, vol. 21, pp. 43–59.
- Dörnyei, Z, Csizer, K & Nemeth, N 2006, Motivation, Language Attitudes and Globalisation: A Hungarian Perspective, Multilingual Matters, Clevedon.
- Dörnyei, Z & Kubanyiova, M 2014, Motivating Learners, Motivating Teachers: Building Vision in the Language Classroom, Cambridge University Press, Cambridge.
- Dörnyei, Z & Otto, I 1998, 'Motivation in action: A process model of L2 motivation', Working Papers in Applied Linguistics, vol. 4, pp. 43–69.
- Dörnyei, Z & Schmidt, RW (eds), 2001, Motivation and Second Language Acquisition, University of Hawai'i at Manoa, Honolulu, HI.
- Dörnyei, Z & Ushioda, E 2011, *Teaching and Researching Motivation*, 2nd edn, Pearson, Harlow.
- Elliot, A & Church, M 1997, 'A hierarchical model of approach and avoidance', *Journal of Personality and Social Psychology*, vol. 72, no. 1, pp. 218–232.
- Elliot, A, McGregor, HA & Gable, S 1999, 'Achievement goals, study strategies and exam performance: A mediational analysis', *Journal of Educational Psychology*, vol. 91, no. 3, pp. 549–563.
- Gardner, RC 1985, Social Psychology and Language Learning, Edward Arnold, London.
- ——— 2006, 'The socio-educational model of second language acquisition', *EUROSLA Yearbook*, vol. 6, no. 1, pp. 237–260.
- Gardner, RC & Lambert, W 1959, 'Motivational variables in second language acquisition', *Canadian Journal of Psychology*, vol. 13, no. 4, pp. 266–272.
- Gardner, RC & MacIntyre, PD 1993, 'On the measurement of affective variables', Language Learning, vol. 43, no. 2, pp. 157–194.
- Gardner, RC, Tremblay, P & Masgoret, A 1997, 'Towards a full model of second language learning: An empirical investigation', *The Modern Language Journal*, vol. 81, no. 3, pp. 344–362.
- Guilloteaux, MJ & Dörnyei, Z 2008, 'Motivating language learners: A classroom-oriented investigation of the effects of motivational strategies on student motivation', TESOL Quarterly, vol. 42, no. 1, pp. 55–77.
- Heckhausen, H 1991, Motivation and Action, Springer, New York, NY.
- Heckhausen, H & Kuhl, J 1985, 'From wishes to action: The dead ends and short cuts on the long way to action', in M Frese & J Sabini (eds), *Goal Directed Behaviour: The Concept of Action in Psychology*, Lawrence Erlbaum, Hillsdale, NJ, pp. 134–160.
- Holmes-Smith, P 2000, *Introduction to Structural Equation Modeling Using LISREL*, School Research, Evaluation and Measurement Services, Melbourne.

- Jöreskog, KG & Sörbom, D 1996, LISREL 8: User's Reference Guide, Scientific Software International, Chicago, IL.
- Kaiser, HF 1960, 'The application of electronic computers to factor analysis', Educational and Psychological Measurement, vol. 20, no. 1, pp. 141–151.
- Lamb, M 2004, 'Integrative motivation in a globalizing world', *System*, vol. 32, no. 1, pp. 3–19.
- Masgoret, A & Gardner, R 2003, 'Attitudes, motivation, and second language learning: A meta–analysis of studies conducted by Gardner and associates', *Language Learning*, vol. 53, no. 1, pp. 123–163.
- McIntosh, CN & Noels, KA 2004, 'Self-determined motivation for language learning: The role of need for cognition and language learning strategies', Zeitschrift für Interkulturellen Fremdsprachenunterricht, Online, vol. 9, no. 2, p. 28, viewed 19 August 2014, https://zif.spz.tu-darmstadt.de/jg-09-2/beitrag/Mcintosh2.htm
- Middleton, M & Midgley, C 1997, 'Avoiding the demonstration of lack of ability: An underexplored aspect of goal theory', *Journal of Educational Psychology*, vol. 89, no. 4, pp. 710–718.
- Midgley, C, Kaplan, A, Middleton, M, Maehr, M, Urdan, T, Anderman, L, Anderman, E & Roeser, R 1998, 'The development and validation of scales assessing students' achievement goal orientations', *Contemporary Educational Psychology*, vol. 23, no. 2, pp. 113–131.
- Midgley, C, Maehr, M, Hicks, L, Roeser, R, Urdan, T, Anderman, E, Kaplan, A, Arunkumar, R & Middleton, M 1997, *Patterns of Adaptive Learning Survey*, University of Michigan, Ann Arbor, MI.
- Moskovsky, C, Alrabai, F, Paolini, S & Racheva, S 2013, The effects of teachers' motivational strategies on learners' motivation: A controlled investigation of second language acquisition', *Language Learning*, vol. 63, no. 1, pp. 34–62.
- Noels, KA 2001, 'New orientations in language learning motivation: Towards a model of intrinsic, extrinsic and integrative orientations and motivation', in Z Dörnyei & RW Schmidt (eds), *Motivation and Second Language Learning*, University of Hawai' i Press, Honolulu, HI, pp. 43–68.
- Noels, KA, Clement, R & Pelletier, LC 1999, 'Perceptions of teachers' communicative style and students' intrinsic and extrinsic motivation', *The Modern Language Journal*, vol. 83, no. 1, pp. 23–34.
- ——— (2001), 'Intrinsic, extrinsic and integrative orientations of French Canadian learners of English', *Canadian Modern Language Review*, vol. 57, no. 3, pp. 424–442.
- Noels, KA, Pelletier, LC, Clement, R & Vallerand, RJ 2000 'Why are you learning a second language? Motivational orientations and self-determination theory', *Language Learning*, vol. 50, no. 1, pp. 57–85.
- ——— (2003), 'Why are you learning a second language? Motivational orientations and self-determination theory', *Language Learning*, vol. 53, no. 1, pp. 33–64.
- Oller, JW 1982, 'Gardner on affect: A reply to Gardner', Language Learning, vol. 32, no. 1, pp. 183–189.
- Oxford, R 1994, 'Where are we regarding language learning motivation?' *The Modern Language Journal*, vol. 78, no. 4, pp. 512–514.

- Oxford, R & Shearin, J 1994, 'Language learning motivation: Expanding the theoretical framework', *The Modern Language Journal*, vol. 78, no. 1, pp. 12–28.
- Oxford, RL (ed.), 1996, Language Learning Motivation: Pathways to the New Century (Technical report vol. 11), University of Hawai'i at Manoa, Honolulu, HI.
- Pae, TI 2008, 'Analysis of the factors affecting second language achievement', *Journal of Language and Social Psychology*, vol. 27, no. 5, pp. 5–27.
- Ryan, RM & Deci, EL 2000, 'Intrinsic and extrinsic motivations: Classic definitions and new directions', Contemporary Educational Psychology, vol. 25, no. 1, pp. 54–67.
- Ryan, S 2009, 'Self and identity in L2 motivation in Japan: The ideal L2 self and Japanese learners of English', in Z Dornyei & E Ushioda (eds), *Motivation*, *Language Identity and the L2 Self*, Multilingual Matters, Bristol, pp. 120–143.
- Schmidt, RW, Boraie, D & Kassabgy, O 1996, 'Foreign language motivation: Internal structure and external connections', in R Oxford (ed.), *Language Learning Motivation: Pathways to the New Century* (Technical report vol. 11), University of Hawai'i at Manoa, Honolulu, HI, pp. 9–70.
- Smith, M, Duda, J, Allen, J & Hall, H 2002, 'Contemporary measures of approach and avoidance goal orientations: Similarities and differences', *British Journal of Educational Psychology*, vol. 72, no. 2, pp. 155–190.
- Tabachnick, BG & Fidell, LS 2012, *Using Multivariate Statistics*, 6th edn, Pearson, Boston, MA.
- Tremblay, P & Gardner, R 1995, 'Expanding the motivation construct in language learning', *The Modern Language Journal*, vol. 79, no. 4, pp. 505–520.
- Urdan, T, Ryan, RM, Anderman, E & Gheen, MH 2002, 'Goals, goal structures and avoidance behaviors', in C Midgley (ed.), *Goals, Goal Structures and Patterns of Adaptive Learning*, Lawrence Erlbaum, Mahwah, NJ, pp. 55–84.
- Ushioda, E 2001, 'Language learning at university: Exploring the role of motivational thinking', in Z Dörnyei & RW Schmidt (eds), *Motivation and Second Language Acquisition* (Technical report vol. 23), University of Hawai'i at Manoa, Honolulu, HI, pp. 93–125.
- ——— 2012, 'Motivation: L2 learning as a special case?', in S Mercer, S Ryan & M Williams (eds), *Psychology for Language Learning: Insights from Research*, *Theory and Practice*, Palgrave-Macmillan, London.
- —— 2013, International Perspectives on Motivation: Language Learning and Professional Challenges, Palgrave Macmillan, London.
- Vallerand, RJ (1997), 'Toward a hierarchical model of intrinsic and extrinsic motivation', in MP Zanna (ed.), *Advances in Experimental Social Psychology*, Academic Press, New York, NY, pp 271–360.
- Woodrow, LJ 2006, 'A model of adaptive language learning', *The Modern Language Journal*, vol. 90, no. 3, pp. 297–319.